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The Journal of Cutaneous Diseases

INCLUDING SYPHILIS

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JAMES C. WHITE, M.D.	BOSTON
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WILLIAM T. CORLETT, M.D.	CLEVELAND
HENRY W. STELWAGON, M.D.	PHILADELPHIA
GEORGE T. JACKSON, M.D.	NEW YORK
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“WHITE-SPOT DISEASE” (MORPHŒA GUTTATA) AND LICHEN PLANUS SCLEROSUS ET ATROPHICUS. A CLINICAL AND HISTOLOGICAL STUDY OF THREE CASES, WITH A REVIEW OF THE LITERATURE.

By FRANK HUGH MONTGOMERY, M. D., and OLIVER S. ORMSBY,
M. D., Chicago.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

THE object of this paper is to present a clinical and histological study of two cases of the so-called “White-Spot Disease,” and one of Lichen Planus Sclerosus et Atrophicus, together with data from the literature, in hope of contributing to the solution of the question whether the above named conditions should be recognized as clinical entities, or should be considered unusual types of morphœa or local scleroderma.

The first published report of white-spot disease was by Westburg.¹ The patient was an unusually well-developed girl, eleven years of age, of healthy parentage. She had always been well, except that between the ages of one and one-half, and six years she had suffered some from asthma. Two years prior to the present examination, she had a severe attack of whooping cough, followed, three months later, by measles, in which the lesions were unusually large and very numerous. The present disorder began not long after as white spots on the breast, where the rubeolar lesions had been most abundant, and gradually spread to other parts of the trunk. On examination, no evidence of other disease, systemic or local, except a tendency to factitious urticaria, could be determined.

The cutaneous lesions appeared as millet-seed to bean-sized, round or oval spots, of a dense, chalky-white color, with a smooth surface, and a “playing-card” resistance to the touch. To the

¹ *Monatsh. f. prakt. Derm.*, 1901, xxxiii., p. 355, with colored plate.

finger passed lightly over lesions where the skin was put on the stretch, there was a suggestion of elevation, which could not be detected when the skin was relaxed. Some of the smallest spots had a slightly yellowish tinge. The lesions were discrete, and scattered sparsely over the trunk, in general following the lines of cleavage of the skin.

Histologically, the lesions showed a marked hypertrophy of the collagen bundles, which were nearly straight, packed closely together, and did not interlace, producing a parenchymatous (not œdematous) swelling. The cutis appeared pressed together; the connective-tissue nuclei were larger than normal and arranged in rows. The tissue stained more deeply with methylene blue and acid fuchsin than did the surrounding normal skin. The diseased area was not very sharply defined. Westburg states that the vessels were compressed by the hypertrophied collagen, but were otherwise unaltered, and that there was no evidence of inflammation, though mast-cells were present in large numbers. His colored plates, however, show very marked lines of cell-infiltration corresponding to the vessels, and his high power drawing shows a large number of nuclei immediately about the vessels. It is difficult to accept his explanation that these nuclei are merely the normal connective-tissue nuclei pressed together about the vessel. The number and arrangement of these nuclei certainly indicate cell-multiplication; while the large number of mast-cells suggests the presence of a chronic inflammatory process. The elastic tissue was normal, but more or less displaced. The epithelium was intact.

The second published case of white-spot disease is that of Johnston and Sherwell.² The patient, a woman, aged twenty-six years, was thin and neurotic, but otherwise in fairly good general health. She had suffered from time to time with an erythematous condition of the face.

The lesions of the present disorder were of thirteen years' duration, and, according to the patient's statement, had gradually increased in number, but had changed very little individually. The lesions were located on the anterior part of the chest, from the outer third of the left clavicular region to the middle of the right, and from the shoulder girdle to the upper margin of the breasts. There were also striate atrophic spots about the root of the neck and over both scapulæ. The authors describe the lesions as follows: "The spots on the chest are arranged like beads in the successive rows of a necklace, following the skin lines and roughly corresponding to the dis-

² *Jour. Cut. Dis.*, 1903, xxi., p. 302.

tribution of the vascular supply, running across from one side to the other. The individual lesion is raised only very slightly above the surface, and is smooth to the touch. The smallest, presumably the earliest, are no larger than the head of a white pin. The outline is sharp and irregular, without a trace of inflammatory areola, running often into tiny projecting points as it increases in size. There is not much tendency in the lesions to unite, but when this occurs, the spots form an end-to-end juncture, so that they are never of great extent. Certain of them exhibit a central point which clinically gives the appearance of umbilication, but in reality is a tiny elevation due to a separation of the epidermis (see histology.) The color is by far the most striking feature of the disease. It is the dead-white of snow. The chest looks as though it had been spattered with a white-wash brush.

In the course of time, to which no definite limit can be set, certain of the spots undergo involution. A thin scale separates, and there is left an atrophic area corresponding exactly to the white-spot which preceded it. This atrophy may be punctate or striate, and is not different, except in distribution and outline, from that resulting from lupus erythematosus, symmetrical atrophy, or ordinary *striae atrophicæ*. There are no subjective symptoms, but the patient scrapes off the scales from time to time and rubs the other lesions from the annoyance their presence gives her.”

Histology—The changes were chiefly in the upper reticular and papillary layers, and classed by Johnston as a pure degeneration. The collagen had disappeared and elastin was broken up into short lengths or granules, taking the acid orcein stain deeply. A granular basophylic material replaced the collagen. Some of the vessels in the papillary layer were present, but dilated (“owing to the lack of tension”), their endothelium swollen and projecting into the lumen. An irregular lymphocytic infiltration occurred about and independent of the vessels. Swollen proliferated fibroblasts occurred here and there. Epithelial changes were secondary. The inter-papillary projections had disappeared in the areas of most complete degeneration. The rete composed of four or five rows of cells showed hydrophic degeneration. The stratum granulosum was absent or consisted of only one layer of cells, and the stratum corneum was slightly increased. Johnston believed the process to be similar to that found in symmetrical atrophy of the skin.

A case of “white-spot disease” was presented before the New York Dermatological Society, February 23, 1904, by Dr. Sherwell.³

³ JOUR. CUT. DIS., 1904, xxii., p. 188.

The patient, a woman, aged twenty-six, was, according to Sherwell, an exact analogue of the preceding case reported by Dr. Johnston and himself, except that in this instance there was a more rapid development of the lesions. The disease was of but two years' duration. The lesions first appeared at the base of the neck, at the junction of the sternum. They gradually increased in number and size until now they were larger than a ten-cent piece. Their extension followed in general the line of cleavage of the skin, and now occupied the region anteriorly down to the mammæ, and posteriorly down between the shoulders. The lesions were of a dull, dead-white color and were discrete. Even where they formed patches they preserved their identity. This tendency to non-coalescence was considered by Sherwell to argue against the disorder being a scleroderma. In the discussion, Bronson stated that he believed the case to be an example of atrophía cutis maculosa.

Two cases of a "white-spot affection" of the skin were presented before the London Dermatological Society, by J. M. H. MacLeod, May 11, 1904.⁴ The patients were mother and daughter. In the case of the mother, there were numerous small, whitish spots, varying in size from a pin's head to a split pea. Those on the neck were white or pearly in color; some circular in shape, others angular or irregular, and surrounded by a red, inflammatory halo. Some of them could be felt on the skin; others were depressed and atrophic. MacLeod states that they strongly suggested small lesions of morphœa guttata, similar to Duhring's case of morphœa with maculæ atrophicæ.

In the case of the daughter, a child eleven years old, there were distributed irregularly over the abdomen, numerous white macules. These were not surrounded by a halo, were not palpable with the finger, and were not atrophic. According to the mother's statements, they were increasing in number and spreading toward the chest. The lesions were more irregular in outline than in the mother, but bore no distinct resemblance to morphœa. They had existed for several years. In the discussion, difference of opinion existed among the members relative to diagnosis. Lichen planus atrophicus, morphœa, and scars from a previous eruption were considered.

Duhring⁵ reported a case in which there were typical lesions of morphœa and some areas of atrophy, together with pea-sized, rounded, sharply-defined, slightly depressed, whitish or pearl-colored, and atrophic macules, chiefly upon the neck, though a number of

⁴ *Brit. Jour. Derm.*, 1904, vol. xvi., p. 224.

⁵ *Am. Jour. Med. Sci.*, 1902, vol. civ., p. 551.

these atrophic macules extended up the forearm toward the elbows in a linear arrangement. Duhring thought that these several varieties of lesions, though probably due to the same cause, were not stages of one process, but distinct forms, beginning and running their course as such.

Unna, in his histopathology, describes a card-like scleroderma, which appears as white spots, varying in size from a lentil to a sixpence. They are sunk slightly below the level of the surrounding skin, and affect especially the breast and shoulders. He states that the spots are bluish-white, mother-of-pearl, or chalky-white, and look as though a bit of visiting card had been inserted into the skin. At times the spots are surrounded by a fine, bluish border, and may be raised over the underlying tissue. Healing is spontaneous, a scar like that of senile atrophy being left. His description thus corresponds closely with that of the white-spot disease. He mentions two cases, one in an old woman, and one in a girl, that he studied histologically. The older lesions showed under the microscope the changes common to scleroderma, but his description of the histology of a recent lesion corresponds closely with that given by Johnston in his case.

The two following cases which have been under the observation of the writers and of Dr. James Nevins Hyde, clearly belong to this group.

CASE 1. This patient was shown before the American Dermatological Association at its meeting in Chicago in 1901, nearly a year after she first came under observation, and at a time when many of the areas had become more or less atrophic. The majority of the members who examined her were unwilling to make a definite diagnosis, considering the case unique, though several expressed the opinion that the case was an unusual, early form of morphœa.

History—The patient is an unmarried woman, forty years of age, and for many years has been a school teacher. The family history contains little of interest. Her father died of heart trouble and dropsy. Her mother is still alive and well. One brother died of tuberculosis. The patient was fairly well as a child, having had whooping cough and measles, but no other acute illnesses. She is slight and clearly of nervous temperament, but sleeps well and gives no evidence of being neurotic. Her digestion is good; she is well nourished, and there are no evidences of systemic disease. She reached the menopause at the age of thirty-five. Her skin has always been more or less irritable, becoming dry and rough in cold and damp

weather. She has had also persistent and troublesome eczema of both axillæ and adjacent surfaces. She had such an attack soon after the onset of the present skin disorder, and for a few weeks her chest also was the seat of an acute vesicular and crusting eczema.

The present disorder began two years ago as a small, white spot in the skin over the sternum. The spot was of a dead, glistening white, and looked like scar-tissue. There were no subjective sensations. The original spot slowly extended peripherally. During the subsequent few weeks, other similar spots appeared over the front of the chest, shoulders, and neck. There has been slight continued progress of the disorder up to the present time.

On examination, the most striking feature is the peculiar, dense whiteness of the lesions. The color, or rather absence of it, is what one sees in a fresh chalk-mark or in clean, closely packed snow. The areas most involved are the shoulders, the neck, and upper portions of the chest and back. A few lesions are present on the abdomen. The individual spots are for the most part about the size of a small split-pea. Several have enlarged peripherally to form oval lesions, the largest being three-fourths of an inch by one-half inch. Some yet larger areas have been formed, however, by the coalescence of smaller lesions. These larger patches are irregular in outline, and frequently show at the margin slightly projecting points or ridges, suggesting those seen in keloid. In places, especially on the sides of the neck, the smaller lesions show a tendency to linear arrangement, the result, apparently, of the tendency of all the lesions to arrange themselves with their long axes lying along the natural lines of the skin. There are a few pin-head sized lesions, the majority of them having the same dense-white color, but several show a yellowish or brownish tinge. The patient thinks that most of the lesions began with these minute, slightly colored points. The small lesions show, for the most part, a smooth surface, and to the touch are firm, yet have a slight cushiony feel. The larger lesions and areas are covered by a dry, glistening epithelium, which wrinkles readily, like atrophic scar-tissue. In some of the lesions a needle inserted under this thin epithelial covering moves about easily between it and the underlying tissue, and when the needle is withdrawn a minute drop of serum exudes. The surface of some of the larger lesions shows irregular lines and quadrillations and numerous punctiform depressions, which are frequently occupied by dirty-yellowish plugs, which are easily removed. To the eye, and in the photograph the lesions appear elevated, but on palpation the elevation is found to be slight or absent. The lesions are sharply defined, and a few of them are bounded by a narrow, faint, hyperæmic zone. There are no subjective sensations. The tactile sense is wanting over the areas. (Figs. 1 and 3.)

A year later, at the time she was shown before this Association,

at which time also the second group of photographs was taken, about half the lesions were distinctly atrophic, covered with a thin, parchment-like epidermis, and very slightly depressed below the level of the surrounding skin. There were, however, at this time a few new lesions. (Figs. 2 and 4.)

The patient was seen again in December, 1902. There were no new lesions and many of the older ones had become distinctly atrophic. Others, however, were surrounded by a very distinct purplish and hyperæmic border, in which were numerous telangiectases; in short, they appeared to be quite typical patches of *morphœa*.

A recent report from the patient (May, 1906), states that no new lesions have appeared, and that the old ones have become simply soft white scars. A varied treatment during the first year she was under observation apparently had little or no effect upon the condition.

Histology—Two pieces of tissue were removed for this study. These were excised at the time the patient was exhibited before the members of this Association at the meeting held in Chicago in 1901. The first was a small, circular, white, supposedly early, lesion situated over the left scapula. The second was taken from the advancing border of a larger lesion, situated on the chest, which showed clinically a hyperæmic border. In the small, early lesion, the pathological changes were exhibited in the center third of the section and were situated chiefly in the corium. The collagen was hypertrophied and appeared more homogeneous. There was little tendency to interlacing of the fibres. The elastin was absent or represented by small bits here and there, and there was a cellular infiltration of varying intensity, most marked about the vessels, glands, and hair follicles. Connective tissue nuclei were abundant over the entire area. In a few places where the cellular infiltration was most abundant the collagen was also absent. The infiltration was composed of connective-tissue cells, lymphocytes or small plasma cells, with only an occasional mast cell. Blood vessels were few, and the hair follicles, sebaceous, and coil glands present were unaltered. The epidermis showed few changes. There was no hyper-pigmentation, and aside from hyperkeratosis, no essential changes were present.

In the larger, older lesion, the chief changes were also limited to the corium. The outer portion (which showed clinically as a hyperæmic zone), was occupied by a cellular infiltration, chiefly surrounding a dilated blood vessel. This area was fairly well defined from the normal skin on one side and from the area of collagenous hyper-

trophy on the other. The infiltration consisted of connective-tissue cells, lymphocytes or small plasma cells, and a few typical plasma cells. Over the greater part of the balance of the affected area and occupying the papillary and most of the reticular layer, the collagen occurred in long comparatively fine bundles and fibrils running horizontally across the field. They were practically straight, showed no interlacing and had very few nuclei. Elastin was almost entirely absent and no blood vessels, glands, or collections of cells were present. The papillæ over this region were obliterated and the division between the epidermis and corium was represented by a straight line. In the lower part of the reticular layer there was a small amount of hypertrophic collagen upon the bundles of which were large numbers of connective-tissue nuclei. No significant changes occurred in the epidermis other than some hyperkeratosis and the obliteration of the rete pegs above referred to. Comparing the two sections it appears that there is first a cellular infiltration with blocking of the vessels. This condition is followed by collagenous hypertrophy, and finally as shown in the oldest portion of the section, by scar formation.

CASE 2. The patient was a married woman, forty-nine years of age. She was sent by her family physician to Dr. Hyde, to whom we are indebted for the privilege of reporting the case.

The family history is, on the whole, good, though the patient states that there is a tendency to dropsy and heart disease on the mother's side of the family. Her father died at the age of seventy-two of heart disease. Her mother is living, at the age of seventy-eight. The patient has had one daughter die of dropsy.

The patient was married at the age of fourteen, has had seven children and one miscarriage. She had a severe attack of measles at the age of seventeen, and states that she has suffered from indigestion and palpitation ever since she can remember. Of recent years she has suffered severely from cramps in her stomach. She gives also a vague history of several attacks of malaria, "bilious fever," and grip. She has had two attacks of gall-stones, and for several years has been constantly worried by an intemperate husband and financial difficulties. She has recently passed the menopause, and notwithstanding her history she is fairly well nourished, but is highly neurotic. An examination by our associate, Dr. McEwen, revealed no definite systemic disorder aside from a slight dilation of the stomach.

The present skin disease began six years ago by the appearance simultaneously of a few small, white spots on the shoulders and a larger white area on the left leg. The area on the leg has gradually increased in size and has become more or less pigmented. The white

spots on the shoulders have steadily increased in number up to the present time. During the first two or three years, the patient says she occasionally had stinging sensations in the spots, followed by slight itching, but, on the whole, the subjective sensations have been very mild, and absent most of the time.

On examination, the skin over the inner two-thirds of the clavicles, and the central and upper portions of the chest and back is dotted with peculiar white lesions, which correspond closely with those described in Case 1, except that they are much smaller, varying in size for the most part from that of a pin-head to that of a small split-pea, and show little tendency to coalesce. On the back, however, are three small irregular patches formed by the junction (but not complete coalescence) of individual lesions. The features described in connection with the larger areas in Case 1—the wrinkled and parchment-like epidermis, the punctate depressions, and yellowish plugs—were not present in this case, except in a mild degree on one of the patches on the back. Furthermore, in this patient many of the lesions were sharply outlined by a narrow line of brownish-red pigmentation. The lesions showed the same peculiar, dense whiteness, sharp outline, and the absence of definite elevation, that were noted in the first case. (Fig. 5.)

On the outer and anterior surface of the leg is a broad band of typical scleroderma, extending from just above the knee to the ankle. This area is hypertrophic, hard and board-like, in places of a dirty-white color, in others showing varying shades of yellow and brown pigmentation. The borders are not, as a rule, very sharply defined, but in places a definite outline, with hyperæmic zone, can be seen. (Fig. 6.)

Histology—A biopsy was performed, removing an entire lesion slightly smaller in size than a split-pea, together with some of the surrounding normal tissue. The specimen was fixed and hardened in alcohol, embedded in paraffine, and stained in various ways. Pathological changes were noted both in the corium and the epidermis, chiefly in the former. The collagenous bundles were comparatively thick and hypertrophic, were straighter than normal, and showed but little interlacing. The bundles traversed the field in a horizontal direction, and only a comparatively few connective tissue nuclei were present upon them. There were numerous dilated lymph spaces, many of which contained small round, and connective-tissue cells. Only an occasional mast cell was noted. Pigment cells were present throughout the corium and extended fairly deep into the pars reticularis.

Pigment granules were detected apart from the cells. Elastin was normal but its arrangement was modified by the changes in the collagenous bundles. The papillary layer was not well defined, as large bundles of collagen extended into it in places. The wavy line between the epidermis and corium was poorly defined, but was not obliterated. The vessels were few and represented chiefly by narrow longitudinal bands of cells. Their lumen was usually not demonstrable as they were apparently obliterated by the intravascular proliferation. The glands of the skin were represented by a few deeply situated coil glands, and one partially obliterated sebaceous gland. All of these structures were surrounded by a small, round cell infiltration which was also present in two small independent areas. In the diseased area, no hair follicles were present, but at the extreme edge of the section there was a normal hair follicle.

In the epidermis, there was marked hyperpigmentation, the pigment granules showing throughout the basal and adjoining layers, and extending in places to the third and fourth layer of cells. The other changes in the epidermis were unimportant.

In the changes outlined above, one sees only those common to scleroderma. The hypertrophy of the collagen, comparative absence of blood vessels, large numbers of dilated lymph spaces, hyperpigmentation, both in rete and corium, comparative absence of the glands of the skin, are all recognized features of scleroderma.

SUMMARY.—Of the ten cases here assembled, all occurred in women or girls. Two of the women were neurotic. Of the other patients three are reported in good health; while of the remaining five no mention is made of the systemic condition. In seven patients the lesions were limited to, or chiefly located on, the neck, shoulders, and the upper parts of the back and chest. In the other three, the chest or breasts are named as sites of the disorder. In one of our patients there were a few lesions also on the abdomen, and in Duhring's patient, there were also lesions of this type on the arm. In one case (one of those reported by MacLeod), the lesions appeared upon the abdomen and chest, while in one of Unna's cases the regions involved are not mentioned further than that the lesion for examination was taken from the breast. In Westburg's case the lesions appeared first on the breast and spread to other parts of the trunk.

Aside from the location, the characteristic features of the white-spot disease are: the dense whiteness of the lesions; their sharp outline, giving the appearance of their being let into the normal skin;

their small size and tendency to remain discrete even when closely grouped; the absence of distinct elevation and of the colored border characteristic of morphœa. The clinical picture is certainly not that generally seen in morphœa.

On the other hand, in our first case, some of the original lesions after a few years, were transformed into typical areas of morphœa. This case was studied by Johnston in its earlier stages, and in reporting his own case, he states that the two are identical clinically. In our second case, the white spots on the shoulders were accompanied from the beginning by a typical band of scleroderma on the leg. In one of MacLeod's cases, some of the lesions were very much like those of morphœa; and in Duhring's case the white spots were accompanied by typical lesions of morphœa and by striate and macular atrophy. Finally, the last atrophic stage of the white-spot disease apparently differs in no way from the same stage of morphœa, or from macular atrophy of the skin, except that the scars are small and do not coalesce.

Histologically, Westburg's case and the older lesions in the two now reported by us show the connective-tissue hypertrophy, with the straight, parallel, closely-packed collagenous bundles, the cell-infiltration about the vessels, glands and follicles, and secondary changes commonly seen in scleroderma. Unna's "card-like scleroderma," which clinically appears to be identical with white-spot disease, is in its older lesions, also histologically a scleroderma. Johnston describes in his case a granular degeneration and destruction of the collagen, with lymphocytic infiltration about and independent of the vessels which are dilated. His description is not in keeping with the generally accepted ideas of the histology of scleroderma, but in our first case there was some destruction of collagen in the early lesion, and as has already been stated Johnston's description corresponds closely with Unna's histology of an early lesion in one of his cases.

CONCLUSIONS.—It cannot be denied that this series of cases of white-spot disease presents a fairly distinct clinical type, differing decidedly from the usual forms of morphœa. In several cases, however, its close relation to the last-named disorder is apparent, while of the six cases studied histologically, four clearly belong to the scleroderma group, while the other two show changes that have been recognized, though not commonly, in early lesions of scleroderma.

It would seem, therefore, that the evidence would not warrant the classifying of this group as a new disease; it should be considered rather an unusual type of morphœa or localized scleroderma.

LICHEN PLANUS SCLEROSUS ET ATROPHICUS.

Our third case, one of lichen planus sclerosus et atrophicus, is included in this paper because of its striking resemblance clinically to the white-spot disorder, and also to morphœa, and because by many this form of lichen planus is not yet recognized as a distinct clinical type.

The patient, a woman aged fifty-one years, was born and reared in Germany, but has lived in Chicago for thirteen years. She has had seven pregnancies, three of which terminated prematurely. In two others, the infants lived only a few hours, and the remaining two are represented now by two healthy children, aged twenty-three and twenty-five years respectively. She gives a history of having suffered many times during her life with a vague febrile disorder she called "malaria." She is very heavy, somewhat pallid, but fairly well nourished, and is excessively nervous.

The present skin disorder began about eight months ago, she states, as small white and black spots, which have gradually increased in number. The lesions are now situated chiefly over the back part of the shoulders, but extend toward the neck and also a short distance down the back. A few spots are scattered over the upper part of the chest, down to the margin of the mammæ, and there are a few lesions on the upper and external aspect of the arm.

The primary lesion is apparently a slightly elevated, angular, polygonal or irregularly shaped, white papule, which on attaining the size of a millet seed, shows on its surface one or several small, elevated, black, comedo-like points, or minute depressions where the black points formerly existed. A lesion of the size of a split-pea usually contains five or six such points or depressions. The papules vary in size from that of a pin-head to that of a split-pea. A few very minute, angular, white papules are present. Some of the lesions are surrounded by a narrow, pinkish areola; others by a brownish discoloration; while many present no color changes at the border.

Over the back part of each shoulder is a patch formed by the coalescence of papules, which, however, do not completely lose their identity. One of these patches measures about two inches across, is irregular in outline, slightly elevated, white in color except for the black points and depressions which dot its surface, rough to the touch, and presents a somewhat wrinkled appearance. Over the upper part of the chest the lesions are discrete, irregularly disseminated and abundant. Over the clavicles a somewhat linear arrangement is apparent; while in other areas there is some grouping of the lesions. Here and there, atrophic, slightly depressed lesions are present, which are of the same shape and color as those just described.

During the two months in which she has been under observation, there have been observed at times a few very small, red- or brown-tinted papules, which were indistinguishable from the lesions of ordinary lichen planus, but their transformation into white papules could not be traced. During this period, the patient has had very simple treatment, and the only change noted is the disappearance of most of the small, elevated, black points, their places now being occupied by the depressions. She complains of no subjective sensations except that of “pulling,” as the patient describes it. There are no lesions in the mouth or about the wrists. (Figs. 7 and 8.)

Histology—A biopsy was performed, removing a split-pea sized lesion from the posterior aspect of the left shoulder. This lesion was a typical one and contained on its surface six small dots or depressions from which the comedone-like plugs had been removed. The tissue was fixed and hardened in alcohol, embedded in paraffine, and stained in various way. A series of sections in which two hair follicles occurred were studied. A lanugo hair was present in each follicle. The most marked changes are in and about these follicles. As a whole, collagen and elastin are abundantly present except in the areas of cellular infiltration where both are either lessened or absent. Aside from the special areas to be described, the collagen appears condensed and contains fewer connective-tissue nuclei than normal. Blood vessels are few and are represented by strings of cells running horizontally across the field or radiating in various ways from the hair follicles. No vessels can be demonstrated in the papillary layer. In these sections three distinct and fairly well defined masses of cellular infiltration are present in addition to that surrounding the follicles. They are situated in the lower part of the corium, about parallel with the base of the follicles, but not in connection with these structures. Besides these deposits some small areas and some single cells are irregularly distributed about the corium. The infiltration is composed of connective-tissue cells, lymphocytes or small plasma cells, and mast cells. The latter are unusually abundant and occur not only in these special areas, but also irregularly throughout the corium. They are of various shapes, some being large with their granules extending far from the nucleus. The changes in the epidermis occur chiefly about the follicular openings. The line between the epidermis and corium is fairly well defined, its wavy character being only in places obliterated. The rete malpighii consists of about eight rows of cells in which there is some increase in the pigment. The stratum granulosum is composed of two rows of elon-

gated flattened cells containing fine granules of keratohyaline. The stratum lucidum is not demonstrable, and the stratum corneum is thickened. The mouths of the two follicles above mentioned are widely dilated, and in the section give the appearance of a deep V shaped opening, extending from the surface into the follicle. In places in the different sections, a part of this large opening is occupied by a horny material similar to the stratum corneum. The lanugo hair can be demonstrated in the center of this opening, extending down to the base of the follicle. No sweat ducts nor pores occur in the sections, so it is impossible to determine any connection between these structures and the clinical pits or depressions. The coil glands present are unaffected. In one place there occurs a circumscribed area of cellular infiltration in the corium between a coil gland below and the epidermis above, but it seems to have no relation to the gland or its duct. From the involvement of the pilosebaceous apparatus in such a pathological process it would seem that this is the seat of the original comedone-like plug, and later the pit or depression. The pathological process is more deeply situated than in ordinary lichen planus, and the marked involvement of the follicles is not usual in the common variety.

This case is a duplicate, in all essential clinical features, of the four cases reported by Hallopeau.¹ Cases of the same type have been reported by Darier,² Brocq,³ Stowers,⁴ Orbeck⁵ and others. These and other cases have been seen and the type accepted by Besnier, Fournier, Crocker,⁶ and others.⁷ In one of Hallopeau's cases, the buccal mucous membrane showed typical lichen planus lesions.

In size, shape, resistance, and development of the individual papules, and in the grouping and distribution of lesions, this form of lichen planus differs but little from the ordinary varieties of this disease. The chief points in which the sclerotic differs from the ordinary forms, are found in the white color of the papules, the greater prominence of the horny plugs and subsequent depressions, and the final atrophy of the lesions. The narrow red areola or zone

¹ *Union Médical*, 1887; *Ann. de Derm. et de Syph.*, 1889, p. 447; 1896, p. 57; 1898, p. 358.

² *Ann. de Derm. et de Syph.*, 1892, p. 833.

³ *La Pratique Dermatologique*, vol. iii., p. 207.

⁴ *International Derm. Congress*, London, 1896, p. 906.

⁵ *Archiv. f. Derm.*, 1899, vol. l., p. 393.

⁶ *Brit. Jour. Derm.*, 1900, vol. xii., p. 421.

⁷ For complete bibliography, see Brocq, loc. cit.; Zarubin, *Archiv f. Derm.*, 1901, lviii., p. 323; and Riecke, Mracek's "Handbuch der Hautkrankheiten," Vol. ii., p. 595.

PLATE I—To Illustrate Dr. Frank Hugh Montgomery's and Dr. O. S. Ormsby's Article.



FIG. 1.

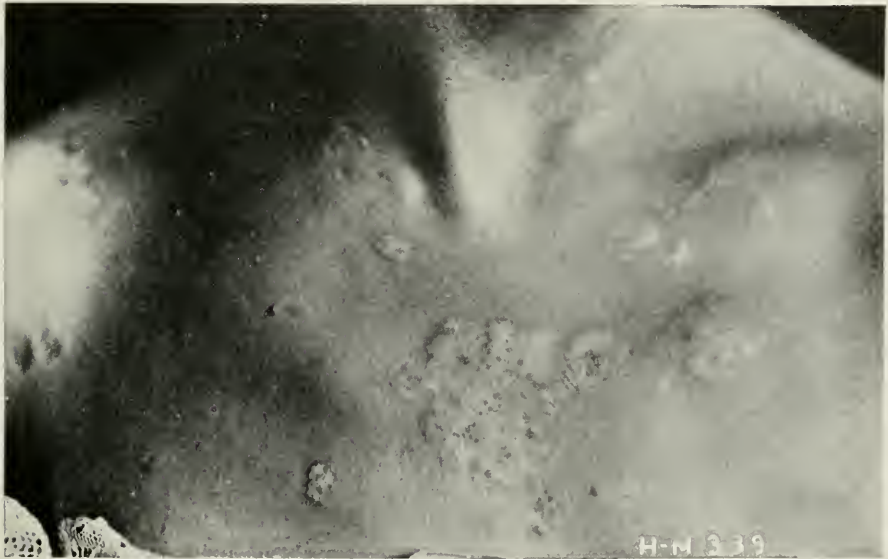


FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.

PLATE IV—To Illustrate Dr. Frank Hugh Montgomery's and Dr. O. S.
Ormsby's Article.



FIG. 7.



FIG. 8.

of pigmentation about some of the lesions, gives them a marked resemblance to morphœa, in consequence of which Crocker suggests the title “Lichen Planus Morphœicus.”

Darier found in two cases (one of them Hallopeau’s), that the histology corresponded closely to that of the common lichen planus lesions, except that the areas of infiltration were situated more deeply in the corium, and were separated from the epithelium by a layer of sclerotic tissue. He also found a tendency to a deeper involvement of the follicles and ducts of the sweat glands than is usual in lichen planus. The histological changes found in our case correspond closely with those described by Darier, though it so happens in our section that hair follicles, but no sweat ducts can be demonstrated.

A number of cases reported as lichen planus sclerosus or atrophicus, are not of the type above described, but are instances—not so very uncommon—in which the usual lichen planus lesions undergo atrophy. That is, the atrophic spots are merely a terminal stage of ordinary lichen planus. There is no doubt that the two types are closely related, and that intermediate forms exist.

There undoubtedly exists a close relationship between these atrophic forms of lichen planus, morphœa, and the macular and striate atrophies of the skin, but this type of lichen planus sclerosus et atrophicus has clinical and histological peculiarities sufficiently pronounced to entitle it to recognition as a distinct type of lichen planus.

DISCUSSION.

Dr. JAMES C. WHITE asked if the lesions appeared simultaneously, or one by one, or in small groups?

Dr. MONTGOMERY replied that they appeared in the course of a number of years.

Dr. JOSEPH GRINDON had seen cases which for the lack of a better diagnosis, he had classed with the atrophia maculosa cutis of Heuss. One case was that of a young man who gave no history of syphilis. He presented a number of symmetrical finger-nail sized lesions, arranged along the lines of cleavage, from the waist over the buttocks and postero-external aspect of the thighs. The new lesions were violaceous and much like the individual lesions of the tubercular syphilide. The older were white and scar-like. The condition had much in common with morphœa.

Dr. MARTIN F. ENGMAN, speaking of the resemblance of these lesions to lichen planus, said it was rather curious that we did not see more cases of the atrophic form. It was also peculiar that the cases reported by

Dr. Montgomery were so similar in their clinical appearances, and so different histologically. The speaker said that in the morphœa lesions he had examined, there was a distinct change in the collagen.

Dr. A. RAVOGLI said he thought we ought to distinguish these cases of morphœa from the atrophic affections of the skin. In morphœa, we have to deal with an affection of the vaso-motor nerves, which impaired the nutrition of the skin. The pigment disappeared, leaving white, permanent lesions, with somewhat reddened edges resulting from inflammation or hyperæmia. In some cases of morphœa, the muscles are affected, and implicated in an atrophic condition. In a case of leprosy, one-half of the face was white, and the muscles atrophied, giving the face a peculiar abnormal appearance. The speaker said he would distinguish between these atrophic conditions, those which are due to vaso-motor disturbance, and those which are due to a sclerotic condition resulting from reabsorption of infiltrations, as it occurs in lichen atrophicus.

Dr. WILLIAM T. CORLETT said the interesting paper of Drs. Montgomery and Ormsby, brought to his mind a case which he observed a number of years ago, and which he subsequently reported in the *American Journal of the Medical Sciences*. The patient was a married woman, thirty-five years old, of a distinctly neurotic type, who had certain ulcerating, chronic lesions below the trapezius muscle, of two years' standing. In addition to that, she had certain other lesions which he regarded as morphœa. The lesions below the trapezius he was at first inclined to regard as syphilitic, although there were no confirmatory evidences of history of that disease.

After observing the case for two years, he came to the conclusion that the ulcerative process was an early stage of the morphœa lesion, and the further development of the case verified this belief. He regarded it as a type of trophoneurosis allied to morphœa.

Dr. MONTGOMERY, in closing, said that they had found the histology of the lesions of lichen planus sclerosis et atrophicus wholly distinct from those of "white-spot disease." The latter was histologically a scleroderma, while in the former the changes were those seen in ordinary lichen planus papules, except that the infiltration was deeper and separated from the surface by a layer of sclerotic tissue. He believed the "white-spot disease" should be regarded as a fairly well defined type of morphœa, and not as a distinct clinical entity.

PEMPHIGUS VEGETANS: REPORT OF A CASE, WITH A REVIEW OF THE SUBJECT.

By JAMES MACFARLANE WINFIELD, M. D.

Professor of Skin Diseases, Long Island College Hospital,
Brooklyn—New York City.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, O., May 31, June 1 and 2, 1906.

THE subject of this paper was the case of pemphigus vegetans shown at the Twenty-ninth Annual Meeting of the American Dermatological Association.

A. H., female, aged eighteen, native of Russia, was admitted to the Dermatological Service of the Kings County Hospital, Brooklyn, N. Y., October 30, 1905. She had lived in the United States for the past two years; had been employed in a bag-mill most of that time.

The family history was negative. Father and mother, two brothers and four sisters living; there was no obtainable history of tuberculosis, syphilis, or any skin disease.

Personal History—The patient had escaped the ordinary diseases of childhood; menstruated at fifteen, had since been regular on the 28th day, flow lasting five days, and was unaccompanied by pain or any other discomfort; denies venereal disease; had always been healthy until two months before admission to the hospital.

The latter part of August, 1905, she was taken ill with vomiting and severe muscular pains distributed throughout the body; she was feverish, although the temperature was not ascertained; the joints were neither painful nor swollen. A few days later blisters formed on the inside of the lips and the tip of the tongue; a week after the initial symptoms, a group of small vesicles appeared in both groins; these increased in number, many of them coalesced and ruptured and a serous fluid exuded. She continued in this condition without any apparent change until her admission to the hospital.

Upon my first observation, the patient presented the following appearance: She was well-developed, blonde, showing no evidences of any stigmata; the mucous surfaces of the cheeks, lips and tongue were covered with blisters and shreds of epithelium; the fauces were red and swollen, considerable pain was experienced in deglutition; in each groin there were large patches, three by four inches in diameter, dark red in color, covered with condylomatous-like vegetations, from

which exuded a foul-smelling serum. The eruption had spread along the periphery in the form of vesicles which rapidly broke down and the base was covered with vegetations. The vagina, anus, umbilicus and the outside of the lips and nostrils were involved.

She remained in this condition about two weeks, then a cluster of blebs formed in the right axilla. A day later blebs appeared in the left axilla, these gradually increased in size, finally breaking down and their places being taken by vegetations.

During the next week, isolated bullæ appeared over the most dependent parts of the body; buttocks, back, and back of the neck.

The serous contents of these blisters was, at first, clear in color, but soon became cloudy and purulent; the roof of the blisters easily ruptured and left a raw, red surface, partially covered with shreds of epidermis; the excoriations were covered with a foul-smelling serous fluid; the borders of the blebs were sharply outlined, apparently springing from a perfectly healthy skin, as in true pemphigus; instead of healing, the denuded areas became covered with the same condylomatous-like vegetations. The diagnosis of pemphigus vegetans was made and was concurred in by Dr. Samuel Sherwell, the consulting dermatologist to the Kings County Hospital.

She remained in this condition about a month, when a slow improvement began; the vegetations about the mouth dried up, the bullæ ceased forming, the nasal passages cleared and there was not much difficulty in deglutition; she was able to sit up and take some solid food—up to this time all nourishment had been given in liquid form; her temperature, which had averaged about a hundred, came down to normal during the two weeks of improvement.

About the first of December she complained of feeling ill, had a slight chill, temperature rose to 103; the next morning new crops of blisters were seen in the axilla, groin, around the umbilicus, mouth, nostrils and back of the neck—these rapidly ran the classical course, followed by the characteristic vegetations; her temperature ranged between 100° and 102°. Some slight improvement had taken place by the 20th of December. Later a more rapid improvement began—the vegetations entirely disappeared in the groin and axilla; the condition of the mouth improved, she became bright and expressed herself as feeling much better, was able to be dressed and sit up the greater part of the day.

This improvement continued about a month, or until the 7th of February, when her temperature again rose from normal to 100°; she complained of feeling miserable. Voluminous groups of blebs, in size varying from a pea to a half dollar, appeared all over the body—more thickly scattered over the backs of the arms, axillæ, groins, feet and face. The mucous membrane of the mouth and nose was again involved; small vesicles appeared over the scalp; the patient



FIG. 1.



FIG. 2.



FIG. 3.

became stuporous, and her condition was so grave that the house surgeon thought a lethal termination was inevitable. She refused food, except small quantities of milk and broth. The temperature after the first rise dropped to 99° , and in the morning was often as low as $97\frac{1}{2}^{\circ}$; the pulse varied from 88° to 112° ; some of the blebs soon ruptured and many of them became flaccid, like those seen in pemphigus foliaceus. Many of the denuded surfaces remained raw, but vegetating outgrowths were seen over the flexures of the elbows, groin, the corners of the mouth, and about the eyes.

The latter part of February she showed slight improvement; many of the skin lesions healed, leaving pigmented and stained areas; the vegetations in the groin ceased exuding and nearly disappeared.

All through March her condition remained fairly good, except that she was weak and emaciated. Her appetite improved.

Early in April she had a chill followed by a rise of temperature, which preceded another outbreak of blebs over the body—more severe on the arms and legs; the mouth was not as much involved as in former attacks. New vegetations appeared in the vulva, groins and umbilicus. During this attack the blebs were always flaccid, large-sized, and ruptured at the slightest touch; the right arm, from the shoulder to the wrist, looked as if it had been burned.

April 25th: The patient is covered with denuded areas with vegetations over the umbilicus, axillæ and groins; the inside of the lips and cheeks are covered with macerated epithelium; the face is considerably swollen, the eyes are nearly closed and exude a purulent discharge; there are vegetations in both ears; difficulty in deglutition; she is markedly emaciated and altogether her condition is most pitiable.

She complains of pain, especially when touched or aroused; her temperature has been about 100° for the last month.

She died on the afternoon of May the fourth—nine months and six days from the beginning of her illness.

During the first half of her illness, she was more or less constipated, it often being necessary to administer laxatives.

Towards the last, her bowels became loose; the stools were generally dark green in color. The last three weeks of her life, there were from three to ten involuntary movements daily.

Treatment—The treatment was supportive and soothing. Tonics, cod liver oil, iron and concentrated nourishment were given.

The external treatment was mainly directed toward making the patient's condition more tolerable; various drugs, applications and ointments were tried, among them were carbolic solutions, Lassar's paste, dusting the denuded places with iodoform or painting them with nitrate of silver. Nothing seemed to have the power to prevent the vegetations or reduce the disagreeable odor of the exudation, until

—at the suggestion of Dr. Parker, the House Surgeon—a 5 per cent. solution of argyrol was painted over the denuded and vegetating surfaces, and a 1 per cent. solution of the same drug was also used as a mouth wash; this seemed to control the conditions, especially the odor, better than anything else we tried. When the skin became greatly involved, as it was toward the end, compresses soaked in raw linseed oil were employed and seemed to give relief. The continuous water bath was not resorted to, because the oil compresses kept her comfortable. Opium as recommended by Hutchinson, together with all the other therapy advised, was used without apparent effect upon the progress of the disease.

Iodide of potash experimentally given in a five grain dose brought out, inside of twenty-four hours, a profuse crop of blebs.

During the early stage of the illness X-ray was used, but it did not seem to have any effect.

Autopsy twenty hours after death. The post mortem findings were as follows:

Body very emaciated; rigor mortis moderate; skin on ventral and dorsal surfaces crustaceous; recent ulcerations and crust formations (vegetations) at mouth, in outer ears, in axillæ, over vulva, and in vagina and anal orifice; very recent bed sores at sacral region and over prominence of right hip.

Abdominal muscles dark and putrefying; thoracic muscles and other skeletal muscles very pale and flabby. Intestines moderately distended; abdominal organs *in situ*. Liver extended to one inch below costal margins. Diaphragm 4th rib right side, 4th interspace left. Sternum normal. A few old adhesions present at apex and between lung and 4th and 5th interspaces, left side; few old adhesions at apex, right side.

Pericardium rather opaque and contained a slight amount of clear, serous fluid.

Heart rather small; right border somewhat œdematous; coronary vessels distended; muscle pale and dry; tricuspid and pulmonary valves apparently normal.

Endocardium of left chambers slightly opaque; two tiny vegetations on posterior leaflet of mitral valve, which latter is somewhat stenosed. Beginning atheroma at root of aorta and in mitral leaflets.

Left lung: Few subpleural, petechial hæmorrhages posteriorly; discrete areas of emphysema and bronchiolectasis scattered over whole of lung. No fluid in corresponding pleural cavity.

Right lung: Heavy; lower lobe markedly congested, posteriorly, and upon section presented two small abscesses (no larger than a split pea) and numerous small hæmorrhagic areas.

Spleen: About normal in size, firm in consistency; exhibited

patches of perisplenitis and few small, white infarets on superior surface. Upon section, stroma was found to be increased.

Intestines: Moderately distended; enteroptosis into pelvic cavity; vessels very injected, especially in vicinity of cæcum. Hæmorrhagic enteritis. Retroverted appendix. Mesentery somewhat thickened; glands markedly enlarged.

Left and right kidneys: Moderately enlarged; stellate veins prominent; capsule not adherent; cortex swollen; markings not distinct: few hæmorrhagic areas in cortex of left kidney.

Adrenals cystic.

Liver exhibited some fatty changes and its vessels showed moderate condition of stasis. Gall bladder contained about $3\frac{1}{4}$ oz. of clear, yellowish bile.

Pancreas: Apparently normal. Oesophagus: Apparently normal; hæmorrhagic gastritis at pyloric end of stomach.

Uterus and adnexa apparently normal.

Aorta: Only 3-5 inch in width; showing atheromatous changes throughout.

Mucous membrane of the mouth and pharynx in ulcerative condition.

No brain examination allowed.

Removal of bodies of dorsal and lumbar vertebræ by way of abdomen showed no changes in meninges.

MICROSCOPIC EXAMINATION OF THE ORGANS.

Lungs: Microscopic abscesses; peribronchial infiltration; hæmorrhages and desquamation of vesicular epithelium in alveoli of immediate vicinity.

Heart: Myocardium-muscle elements somewhat shrunk, in places ruptured; interstitial tissue increased; markings somewhat indistinct. Excrescence on mitral valve, made up of fibrin, fibroblasts and leucocytes.

Spleen: Hæmorrhage in parenchyma; moderate proliferation of endothelial cells.

Kidneys: Cortex shrunk; slight increase in interstitial tissues; glomeruli somewhat shrunk. Some of the cells in the convoluted tubules show cloudy swelling, coagulation and fatty necrosis. Vessels in papillæ highly injected.

Liver: Hepatic cords atrophied; nuclei of most cells indistinct, while many cell bodies show cloudy swelling. Lymph channels widened. Perilobular fatty infiltration and venous stasis. Moderate cirrhosis and moderate formation of new bile ducts.

Intestines: Mucosa shows round cell infiltration, hæmorrhages,

mucous degeneration. Muscularis shows hæmorrhages and increase of interstitial tissues. Capillaries engorged.

Retroperitoneal glands: Hyperplasia and slight necrotic degeneration.

Blood vessels: Fatty and atheromatous degeneration of intima; marked calcareous degeneration of media.

The blood findings were practically what other observers have reported, and, therefore, will throw but little light on the etiology of this disease.

There were several examinations of the blood made; three reports are here presented:

The First: December 2, 1905. Red corpuscles 4,960,000. Cells showing loss of hæmoglobin 16 per cent. No nucleated cells. No poikilocytes, microcytes, macrocytes, or polychromatophilic forms.

White corpuscles 12,300. Small mononuclear 8 per cent. Large mononuclear and transitional 7 per cent. Polymorphonuclear 73 per cent. Eosinophiles 11.4 per cent. Mastzellen 6 per cent.

The Second: March 2, 1906. Red corpuscles 2,800,000. No nucleated cells. Poikilocytes 9 per cent. Cells showing loss of hæmoglobin 43 per cent. of total. Polychromatophilic 2 per cent. No granular degeneration. No macrocytes. Few microcytes. Increase of blood plaques.

White corpuscles 10,300. Small mononuclear 1.3 per cent. Large mononuclear and transitional 10 per cent. Polymorphonuclear 83.7 per cent. Eosinophiles 2 per cent. All cells show loss of granules and color perversions. Hæmoglobin 55 per cent.

The last was made a short time before death: Red corpuscles 3,840,000. No nucleated cells. Few poikilocytes. Moderate amount of crenated cells. Most all of which show a loss of hæmoglobin. White corpuscles 12,000. Small mononuclear 8 per cent. Large mononuclear and transitional 6 per cent. Polymorphonuclear 82 per cent. Eosinophiles 2.5 per cent. Hæmoglobin 75 per cent.

There were several urinary analyses made; only twice were there traces of albumen found. This differs from the findings of some observers, who report a high percentage of albumen.^{1 2}

Two of the urinary analysis sheets are here appended.

The first, dated December 2, 1905: The amount in twenty-four hours was not given. Color and odor normal. Reaction acid. Specific gravity 1022. Sediment moderate. Albumen trace. Sugar negative. Indican trace. Bile negative. Albuminose negative. Urea (catheterized) grs. 5 to the oz. (voided) grs. 6 to the oz. Ehrlich's diazo-reaction negative.

¹ R. Stüve, *Arch and Dermat.*, 1896, Band 36.

² A. Ravogli, *Jour. Cutaneous Diseases*, July, 1906.

Microscopic examination of sediment: Abundant epithelial, few blood cells and uric acid.

The second was made six weeks later: Amount in twenty-four hours 18 oz. Color normal. Odor ammoniacal. Reaction alkaline. Specific gravity 1019. Sediment moderate. Albumen trace. Sugar negative. Indican increased. Bile negative. Blood present, faint trace. Urea grs. 6 to the oz., $108\frac{1}{2}$ grs. total. Ehrlich's diazo-reaction present.

Microscopic examination of sediment: Triple phosphates. Amorphous urates. Epithelial and a few red blood cells. Few hyaline casts.

Several bacteriological examinations of the contents of the blebs and blood were made.

In the first set of cultures one of the tubes developed the bacilli coli communis, which was later proven to be the result of contamination. The coli communis was found by Pernet in a case of pemphigus vegetans in a city laborer who worked in the sewers. The finding of this organism in this disease does not seem to have any special significance, for it is almost omnipresent where there is any chance for fecal contamination.

In the other tubes the only organisms found were the staphylococcus pyogenes aureus and the bacillus pyocyaneus. At no time was the bacillus resembling the pseudo-diphtheriæ or the diphtheriæ bacillus found, which has been reported³ by several observers.⁴

The finding of the staphylococcus pyogenes aureus and the bacillus pyocyaneus as corroborated by several other careful observers would seem to point to the conclusion that pemphigus vegetans is an infectious disease.

The following is the bacteriological report by Dr. Harris Moak, lecturer on bacteriology at the Long Island College Hospital:

A characteristic bleb was selected and its surface carefully sterilized with a hot knife blade. It was then opened, and with a sterile platinum loop, slides were smeared and cultures made on agar, gelatin, and blood serum tubes. Agar tubes were also grown under anaerobic conditions. Cultures and smears were also made from the patient's mouth.

Slides stained with carbol-gentian violet showed a few scattered cocci and an occasional small bacillus. The cocci are stained with Gram's method and the bacilli are decolorized.

Cultures were incubated for forty-eight hours. Slides then prepared showed very typical staphylococci and many small bacilli. Media colored very marked green. Anaerobically only cocci were found.

³ Stanziale, *Ann. d. Dermat. et d. Syph.*, Jan., 1904, Nr. I., Tome 5.

⁴ L. Waelsh, *Prag. Arch. p. Dermat. u. Syph.*, 1890, Band. 50. Nr. 1.

The two organisms found were isolated in pure culture and then planted on all ordinary media. The bacillus gave every characteristic of bacillus pyocyaneus and was a very active pigment producer, staining the media a very deep green in seventy-two hours. The coccus proved culturally to be staphylococcus pyogenes aureus.

These two organisms were found in all cultures taken and examined. Slides were taken and later stained with Giemsa's and Goldhorn's Spirochæte stain. Careful search was made for spirochæte pallida, but none were found.

Bacteriological examination of blood taken from the right auricle (postmortem) showed the presence of the bacillus pyocyaneus, and staphylococcus pyogenes aureus et albus.

The bacteriology of pemphigus vegetans has been studied by a number of dermatologists, principally by the following:

Marianelli (*Gior. Ital. d. Mal. Ven. e d. Pel.*, June, 1889, p. 150), was the first to demonstrate the presence of the staphylococcus pyogenes aureus in the blister serum. De Michele (*ibid.*, 1891, p. 19), found a coccus that grew at room temperature in bouillon, but not in blood serum and was not pathogenic to guinea pigs.

Gastou made the bacteriological studies in Danlos' and Hudelo's case (*Ann. de Dermat. et de Syph.*, 1900, p. 1156). He found a small bacillus and a streptococcus in the bullous contents. Pfeiffer secured cultures of the staphylococcus aureus et albus from pieces of vegetating skin excised ten hours after death.

Philippson and Fileti (*Gior. Ital. d. Mal. Ven. e d. Pelle*, 1896, p. 354), found in the contaminated serum diplococcus resembling the gonococcus. Waelsch (*Archiv f. Dermat. u. Syph.*, 1889, p. 71), demonstrated the presence of a pseudo-diphtheriæ bacillus in the blood and blister contents. A year later he found the same organism in another case.

Hamburger and Rubel (*Amer. Jour. of Dermat.*, Vol. 7, 1903), found only the staphylococcus aureus in the bleb contents and the pseudo-diphtheriæ bacillus in cultures taken from the mouth. After death the micrococcus lanceolatus was isolated from the lungs and pseudo-diphtheriæ bacillus from the blood.

Cheeseman reporting on Hyde's case (*Jour. Cutan. and Genito-Urin. Diseases*, Vol. 9, 1891), isolated a bacillus and a coccus neither showing any very characteristic appearance; the coccus was of medium size, occurred singly and in pairs, none-liquifying, produced no color, and grew at room temperature.

Stanziale (*Ann. d. Dermat. et d. Syph.*, Jan., 1904), found the pseudo-diphtheriæ bacillus and a small motile bacteria.

Pernet (*Brit. Jour. of Dermat.*, Oct., 1904), found the bacillus pyocyaneus and the bacilli coli communis in the serous contents of the blisters.

It is evident that several identical bacteria have been found in different cases; the pseudo-diphtheriæ bacillus has been seen five times by four different observers. The small, slightly motile bacteria (diplococcus) has been observed by three different reporters. Several have found the staphylococcus pyogenes aureus.

The finding of the bacillus pyocyaneus seems to me to be rather significant. Pernet thought that his case of pemphigus vegetans had a casual connection with this organism, because his patient worked in the sewers, and this bacteria and others of the same family are present in sewage.

Several writers have described a small motile bacillus, which from description appears to have many of the characteristics of the bacillus pyocyaneus; is it not possible that the described bacillus was the pyocyaneus, but that the observers failed to notice its chromogenic properties?

It would not be impossible for this bacillus to produce pemphigus vegetans, for it is a fact that pyocyanic invasion in children produces green diarrhœa and cutaneous lesions, erythemas, papules and bullæ with fatal termination. (*H. Neumann, Arch. f. Kinderh., Stuttg.*, 1891, Bd. 12, Ehlers, *Hospitalstidende*, Copenhagen, May, 1890. Williams and Cameron (*Jour. of Pathol. and Bacter.*, Edin. and Lond., Vol. 3, 1890.)

Of course this is an acute disease, still the morphological laws of bacteria are such, that a given bacteria might produce an acute disease in one instance and a sub-acute or chronic condition in another. The finding of the bacillus pyocyaneus in the bleb contents, the blood and the heart blood (post mortem), in our case suggested to me the possibility of this organism being in some way etiologically connected with the disease under consideration.

For various reasons there were no histological examinations made of the skin. The failure to have done this will in no way detract from the article, for many more competent observers than I have made full reports upon the histo-pathology of pemphigus. Probably the fullest and most recent is that by St. Weidenfeld, entitled "*Zur Histologie des Pemphigus Vegetans*," published in the *Arch. f. Dermat. u. Syph.*, Band LXVII., Heft 3, 1903.

It is not through histology that we are to arrive at a better

understanding of the disease, for the microscope reveals almost the same picture in any bullous and vegetating skin disease.

It would seem that if pemphigus is a distinct disease, and many things tend to point that way, the mystery of its etiology is to be solved by bacteriology.

When the patient was shown at the 29th Annual Meeting of the American Dermatological Society, Drs. Hyde and Duhring spoke of the classical appearance of the eruption. This was true of the whole course, from its first inception until the fatal termination, in fact the history just read, which was taken from the hospital records, is almost a duplicate of the histories of the cases of Drs. Neumann, Crocker, and Hyde. The only symptom my case did not have in common with those reported was diseased nails. There was no notable change in the nail or nail-bed until late in the course of the illness, and then they were only those of degeneration often seen after severe or chronic illness.

(To be concluded.)

MULTIPLE CANCER OF THE SKIN AND KERATOSIS FOLLOWING THE LONG-CONTINUED USE OF ARSENIC: MULTIPLE ULCERATIONS OF THE SKIN AFTER THE PROTRACTED USE OF THE SAME DRUG.

By JAY F. SCHAMBERG, A. M., M. D., Philadelphia.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

E. R., residing in a small town in Pennsylvania, gives the history of having suffered from psoriasis for thirty years. The patient has taken Fowler's solution at intervals during a period of twenty-five years: It is impossible to obtain from the patient an accurate record of the ingestion of the drug beyond the above vague statement. Upon interrogation, he says that there have been times when he has taken as much as thirty drops of the solution a day for three months.

Upon the date of my first observation, one and a half years ago, he presented the following appearance: The entire trunk, but particularly the posterior aspect, was the seat of numerous pin-head to pea and finger-nail sized, reddened, keratotic patches; these were covered with a rough and somewhat thickened corneous layer. Some of the patches had a pigmented brownish hue. Scattered here and there were more elevated brownish patches, presenting the ordinary appearance of senile keratoses. The extremities showed numerous

discolored patches similar to, but less pronounced than those upon the trunk. The palms and soles were dry and rough, and exhibited a very considerable hypertrophy of the corneous layer of the epidermis. The palmar surfaces in addition to the hyperkeratoses showed the presence of wart-like patches.

Upon the dorsal surface of the right thumb at the metacarpophalangeal articulation, was a circumscribed keratotic patch with central fissuring which extended to the corium and caused considerable pain.

A small pea-sized epithelioma of reddish hue, with pearly borders, was situated on the back in the interscapular region. The overlying epidermis showed no thickening whatsoever.

Upon the right leg a few inches above the outer malleolus, was a hemispherical growth about $1\frac{1}{2}$ centimeters in diameter, and elevated about $\frac{1}{2}$ centimeter above the level of the skin. The growth was about the size of half a hickory nut. The surface was red and roughened, but did not exhibit any thickening of the horny layer. A dull reddish areola surrounded the tumor.

The patient presented no ordinary patches of psoriasis at this time nor did I observe any at subsequent examinations.

In the summer of 1905, I excised the growth upon the leg with a border of healthy skin; the edges of the wound were brought together with difficulty. The patient returned to his home. A letter received nine months later from the patient, conveys the following information. The site of the excision did not heal, and a plaster was applied which removed the entire growth, and after several months the leg healed but remained tender. The keratotic patch on the thumb was treated with a plaster for three months without removing the growth. The patient then went to a Cancer Sanitorium, where after treatment for six weeks, the hand was pronounced cured. The thumb, however, remained unhealed and the forefinger and hand became involved. After consulting several physicians, all of whom advised amputation of the hand, that member was removed at the wrist.

The tumor excised from the leg presents the following histological appearances:

Epidermis—The stratum corneum is absent over certain portions of the growth; where it is present it exhibits no hyperkeratosis, but is normal in thickness. The granular layer exhibits here and there a moderate degree of hyperplasia. The rete mucosum is thickened particularly over such areas of the corium as exhibit the greatest tumor infiltration. There is some inter-epithelial œdema, rendering the prickles prolongations readily visible. Leucocytes are seen here and there wandering through the Malpighian layer. The basal layer is sharply differentiated, the cells taking the stains well. In

certain sections, epithelial downgrowths from the rete project a considerable distance into the corium. A breaking down of the basement membrane and an extensive proliferation of epithelial cells is observed in several areas.

Corium—The entire depth of the corium is the seat of a diffuse and circumscribed neoplastic infiltration. Under low power there are seen to be vertical septa of condensed fibrous tissue, which divide the growth into several parts. From the papillary layer down, there is an extensive growth consisting of masses of epithelial cells arranged in cylinders, islands and in all sorts of irregular groupings. In many areas bundles of epithelial cells are separated by a markedly œdematous stroma. Nests of epithelial cells are frequently observed to lie in the center of dilated lymph spaces. Indeed, the large lobular masses appear to have proliferated in enormously dilated lymph spaces; the latter have concave festooned borders which are separated from the enclosed tumor mass by a clear space. This gives to the separate tumor masses the appearance of being encysted. The blood vessels of the corium are enormously distended and exhibit a proliferation of the lining endothelium. Transverse sections of the capillaries in the sub-papillary layer show the vessels to be frequently blocked up. In some sections, considerable collections of epithelial or endothelial cells are massed about the blood vessels. In the papillary and sub-papillary layers are seen an extensive but diffuse round cell infiltration. Sections from the border of the tumor mass proper, stained with acid orcein, show a complete absence of elastic fibers in the papillary and sub-papillary layers. These are present in normal amount in the deeper layers, a sharp line of demarcation trenchantly dividing the two areas.

The writer is indebted to Dr. Rose Hirschler of Philadelphia, for the preparation of the microscopic sections.

The history of this case is of interest in connection with the assertion of Jonathan Hutchinson, that the long-continued administration of arsenic may result in epithelial cancer, and the reiteration of this view by Hartzell, in his paper before this Association in 1899. Hartzell found in the literature records of ten cases of cancer in psoriatic subjects, seven of whom were known to have taken arsenic over protracted periods of time. In the discussion that followed, Hyde reported a case of arsenical keratosis of the hand followed by epithelioma, necessitating amputation of a finger, and James C. White an additional case of the same condition leading to amputation of a toe.

The only other case that I have been able to find is one presented by Brocq before the *Société de Dermatologie et de Syphiligraphie* in 1902. This case is of particular interest in view of the fact that the patient was not the subject of psoriasis as were all of the other reported cases.

The patient, a man of thirty-five, had taken large quantities of arsenic for many years for a chronic bronchitis. Brocq estimated that in fifteen years the patient swallowed a liter of Fowler's solution, corresponding to ten grams of arsenious acid. There gradually developed melanoderma, hyperkeratosis and verrucosities of the palms and soles, and finally cancer. Two verrucose elevations on the palm of the right hand were replaced by ulcers and subsequently two cancers developed on the left palm. Later a large erosion appeared upon the palm and a small bean-sized growth on the neck. Microscopic study proved these growths to be cancerous.

Brocq holds the arsenic responsible for the growths. He says: "The present observation will serve then to confirm the notion of which I speak, namely, the existence of an arsenical cancer and what is more, of an *epitheliomatose multiple arsenicale*, the tumors developing either on previously existing verrucous hyperkeratoses or on non-hyperkeratotic areas."

The opinions expressed by members of this Association after the reading of Dr. Hartzell's paper in 1899, were in contravention of the view attributing responsibility to the arsenic in the production of cancer.

Several features of the present case deserve emphasis. The majority of the reported cases of cancer following the use of arsenic, developed upon the palms and soles beneath previously hyperkeratotic areas. The nodular cancer of the leg, in the case herein referred to, never presented, during the period of the writer's observation at least, any material overgrowth of the horny layer, nor was there any pronounced hyperkeratosis of the neighboring integument. Furthermore, I cannot find in the perusal of Hartzell's paper, any reference to a case in which so distinct a tumor mass developed. Most of the primary cancers were characterized by destructive ulceration rather than by a new growth hyperplasia.

The features of this case appear to me to lend some additional weight to the assumption of Hutchinson and Hartzell as to the etiological rôle played by arsenic in the production of the growths. Every one admits that a hyperkeratosis caused by arsenic, may in rare instances, eventuate in cancer. May not the long-continued administration of arsenic in persons of a peculiar tissue organiza-

tion, so increase cellular activity or so lessen the resistance of fibrous tissue, as to permit epithelial invasion of the corium. In the case here reported, in conjunction with undoubted arsenical injury of the skin, we observe a cancerous tumor apparently not preceded by hyperkeratosis.

It appears to the writer that the time has arrived when the risk attending the long-continued use of arsenic should be more emphatically called to the attention of the profession at large.

About fifteen cases of cancer of the skin following the protracted use of arsenic have been recorded in literature. Many of these growths have pursued a malignant course. Four necessitated the amputation of extremities or portions thereof; four terminated fatally. How many have, since the publication of the histories, progressed unfavorably is not known.

The second case which I desire to report is as follows:

K. B., an unmarried woman of twenty-nine years, has had psoriasis for about twenty years. A few patches are still seen upon the legs. For a period of four and one-half years, with the exception of a few weeks interruption, the patient has been taking Fowler's solution in five-drop doses three times a day. About the middle of January, 1905, according to the patient's statement, the legs became greatly swollen and in the course of a few weeks she experienced severe shooting pains. Following this the patient noticed several small areas over which the skin was whitish, later yellowish and suppurating.

At the first visit of the patient, she presented over both legs, a number of ulcerations varying in size from a large finger nail to a silver quarter-dollar. These had sharp edges and surrounding areolæ; some of the smaller lesions were deep and punched out. Six ulcers were present upon the left leg and seven upon the right. The patient complained of great pain in the neighborhood of the ulcers and also darting pains in the legs, which seriously interfered with sleep.

Notes made on June 14, 1905, read as follows: The administration of anodynes and hypnotics have relieved the severe pains and have permitted the patient to secure sleep. Under the use of anti-pyrim, five grains three times a day, and a soothing ointment, the ulcerations have filled up with granulations, but there is little tendency to cicatrization. New lesions appear from time to time; they begin as pea-sized and larger blebs, rapidly becoming pustular. A crust is formed which when cast off discloses to view a superficial ulceration.

In order to eliminate syphilis from the diagnosis, the patient was placed on specific treatment. Ten drops of iodide of potash was



FIG. 1.

FIG. 2.



FIG. 3.



FIG. 4.

administered three times a day and one dram of mercurial ointment was rubbed in thoroughly each night. Although the gums were touched, no improvement in the condition of the ulcers followed; indeed, during this period several new areas of disease developed. The history, as to other evidences of syphilis, is negative.

The patient was under the care of the writer for several months; at the time of her disappearance from observation, the ulcerations still persisted. A letter received from her recently states that under the treatment of a druggist, the ulcers healed up.

It appears most probable that the ulcers following the appearance of flat blebs and pustules in this patient, were due to the long-continued use of arsenic. While I have been unable to find in literature any record of arsenic poisoning producing persistent ulcerations of this character, yet pustules and ulcerative arsenical eruptions have been described by several observers.

It is not rare for ulcerative and gangrenous lesions to develop in acute arsenic poisoning, particularly in workers in arsenic. The ulcers may attack the face, neck, extremities and especially the genitals. Perforating ulcers of the nasal septum have been described by a number of writers.

According to Imbert-Gourbeyre, the internal use of arsenic may provoke a pustular varioliform eruption terminating in ulcerations and scars.

Bazin (*Leçons sur les affections cutanées artificielles*, etc., Art. Arsenic, Paris, 1862) has recorded cases in which arsenic caused pustular, ecthymatous, furuncular and ulcerative eruptions.

In one case after the exhibition of small doses of arseniate of sodium for fourteen days, an eruption of small papules appeared on the hypogastrium and right flank. One of these lesions became transformed into an ulcer one centimeter in diameter, surrounded by an inflammatory areola. Nearby were two large ecthymatous lesions with ulcerative centers. Healing was rapid after the cessation of the drug.

Moreira (*Brit. Med. Journal*, 1895, p. 378), a Brazilian physician, reports several cases of pustular arsenical eruptions followed by small ulcerations on the face, shoulders, chest, arms and legs.

DESCRIPTION OF PLATES.

- Fig. 1. Arsenical keratosis. Large cancerous nodule on the leg, numerous keratotic patches and several small epitheliomata on the body.
- Fig. 2. Ulcerations on both legs of many months duration in a patient who had taken arsenic continuously for four and a half years.
- Fig. 3. Epithelial trails in the chorium. Dilated lymph spaces and blood vessels.
- Fig. 4. A large mass of epithelial cells proliferating in a dilated lymph space.

DISCUSSION.

Dr. HENRY W. STELWAGON said there had always been a question in his mind as to how far arsenic was directly responsible for these cancerous conditions of the skin. A great many of the skin cancers began as a hyperkeratosis, and the arsenic sometimes produced this. Similarly in cancers which followed the use of the X-ray, the first condition noticed was a hyperkeratosis; the speaker said he had always doubted whether the X-ray itself produced the cancer, or simply the hyperkeratosis which eventuated in cancer. The same was not improbable as to arsenic.

Dr. THOMAS C. GILCHRIST said he agreed with Dr. Stelwagon that arsenic produced a hyperkeratosis, and that the cancer was a subsequent development.

He had seen about five or six cases of keratosis produced by arsenic, two of them in the palmar and plantar regions. The speaker said he had never seen hyperkeratotic conditions of the skin develop into cancer.

In connection with this general subject, the speaker referred to the development of extensive granulomatous growths following the use of potassium iodide in individuals who were particularly susceptible to the influence of the drug. He recalled a case where five grain doses produced a papulo-pustular and vesico-pustular eruption after twenty grains, in divided doses had been taken.

Dr. FRANK H. MONTGOMERY said he was in entire accord with the statement made by Dr. Schamberg, that the average physician was not sufficiently well acquainted with the dangerous qualities of arsenic. He could recall a number of instances where more or less serious results followed the injudicious use of the drug.

Dr. M. B. HARTZELL said that since the publication of his paper on this subject in 1899, he knew of at least two additional cases of psoriasis in which cancer followed the long-continued use of arsenic. One of these had been presented at a meeting of the London Dermatological Society, by Dr. H. Radcliffe-Crocker. The second case came under his own observation in Philadelphia. The patient was a well-known man who had had psoriasis for many years, for which he had taken arsenic, although not in very large doses. He developed a keratosis of the hands and subsequently an epithelioma, and finally the affected arm had to be amputated.

The speaker said that of the immense number of cases of keratosis that occurred in various diseases, particularly in psoriasis, it was remarkable that this epitheliomatous degeneration should occur only in those instances that had been subjected to the long-continued use of arsenic. One of the most striking arguments in favor of the direct effect of arsenic upon the development of cancer was furnished by the physician who had charge of the workmen in the arsenic mines in Prussia. The drinking

water in those regions is highly charged with arsenic, and in that particular neighborhood, six or eight cases of cancer, following keratosis, came under the observation of this one physician.

Personally, Dr. Hartzell said he believed that in some way the arsenic disturbed the cell growth, and was directly responsible for the development of the cancer. He also believed that there was not a single, but numerous causes for malignant degeneration. Finally, in the face of the facts that had been accumulating since Mr. Hutchinson first drew attention to this subject, he did not see how we could deny that arsenic was an etiological factor in cancer.

Dr. JAMES M. WINFIELD said that he had seen a child about three years old, who, during an attack of pneumonia, was given a cough mixture containing bromide of ammonium. She took about twenty grains of the drug. As a result of this, she developed a bromide eruption which persisted about three months.

The speaker inquired whether any of the members had any knowledge as to whether cancer was of frequent occurrence among the arsenic eaters in the Caucasus?

Dr. JOSEPH GRINDON referred to an article in the *British Journal of Dermatology*, 1901, at the time of the great arsenic epidemic among English beer drinkers. H. G. Brooke and Leslie Roberts then attributed the effect of the arsenic on the skin to a condition of hyperoxidation of the tissues, brought about indirectly by the arsenic.

Dr. SCHAMBERG, in closing the discussion, said it seemed to him a juggling of terms to say that arsenic was not responsible for the cancer in these cases. The mere fact that there was an intervening hyperkeratosis, did not relieve arsenic of the responsibility for the production of the malignant disease. Keratotic lesions, both localized and more or less diffuse, in which there is no cancerous development, are comparatively common. It is certainly rare to observe malignant degeneration of the base of corns, and in this condition we have the continuous pressure of a hyperkeratosis.

The speaker said he agreed with Dr. Hartzell and those who contended that arsenic was the direct causative factor of the cancerous skin lesions, the hyperkeratosis being merely a transitional process.

CORRESPONDENCE
RESPECTING BLASTOMYCOSIS.

CHICAGO, November 26, 1906.

To the Editor of the Journal of Cutaneous Diseases:

Dear Sir:—In some of the medical periodicals, dermatological and other, published lately on the Continent of Europe, evidence is shown that there is still a small group of our friends on the other side of the Atlantic who are not ready to accede to the views generally held in this country on the subject of the nature of the disorder described in America as blastomycosis. Buschke, Busse, Oppenheim, Dubreuilh, and many others, it is true, have fully accepted these views, and have published reports of interesting cases. These reports, though relatively few, throw light upon the conditions developing elsewhere, and especially in Chicago, where more instances of this disorder have been recognized than in any other part of the world.

I am venturing to ask a brief space in your columns for the purpose of calling the attention of our friends in this country, but especially across the Atlantic, to a few facts which should be taken into consideration when a resemblance is recognized between sections of skin affected with epithelioma, and those removed from the subjects of blastomycosis.

First, the important fact should be emphasized that in our later experience, blastomycosis has for some time ceased to be preëminently a dematosis, however striking and significant its cutaneous lesions. The effective organisms have been recognized in the sputum, larynx, trachea, lungs, pleura, myocardium, liver, spleen, pancreas, kidneys, adrenals, mesentery, lymph glands, bones, joints and subcutaneous as well as cutaneous tissues. Blastomycetes have been found in pure cultures, not only in the characteristic minute abscesses occurring in the borders of cutaneous lesions, but also in closed cavities impossible of access of microorganisms from without the body. Further, a fact of importance not to be ignored, these lesions have been found associated with those occurring in tuberculosis, cancer, and syphilis, where such symbiosis was fully determined, but in the majority of the cases, numbering now nearly one hundred, observed in the city of Chicago alone, no such coincidence of diseases has been recognized after the most painstaking investigation.

Second, a fact which it is quite unnecessary to repeat to American observers, typical lesions of blastomycosis have been reproduced in animals by inoculations of pure cultures of blastomycetes, which again have

been recovered from such artificially produced lesions, and later transferred to other animals with the result of producing the disease, not once, but often. In the same connection, it is worthy of note that at least two physicians infected with the disease (demonstrated in their persons by discovery of characteristic organisms), have suffered, as a consequence, in one case, of treating the disorder in another subject, and in a second case, after making a post-mortem examination of the body of a male patient dead of the disease. And *à propos* of this last-named case, it is to be remembered that fatal issues in this disease have been of late multiplying, and that examination in detail of every viscus and tissue in the bodies of the dead, made by competent clinicians, surgeons, and pathologists, has resulted in their acceptance of the conclusions generally received in this country as to the nature of the disorder.

But, third, an important point which has largely led to this intrusion upon your columns, it has been recently made probable that the remarkable preponderance of the disease in the State of Illinois is due chiefly to curious and as yet unexplained local conditions which facilitate to an extraordinary degree the growth here of blastomycetes. When these local conditions are no longer effective, there seems to be a scarcely less surprising inhibition of the growth. As a matter of personal experience, I have been not a little annoyed after sending with special precautions blastomycetic organisms (in culture-tubes and sections of tissue in which they were readily demonstrable) to friends in Europe, to learn later that these gentlemen had been wholly unable to recognize the special features of the disease, as well in Austria and Germany, as in France, and other countries.

An interesting clinical experience has recently given emphasis to this fact. A young woman, examined by several experts and physicians of large experience in internal medicine, was found affected with blastomycosis, typical, multiple, subcutaneous nodules and open ulcers, concurring with a series of furuncular lesions, the contents of each containing pure cultures of blastomycetes. The disease progressed to a point where one of the smaller joints was opened by a blastomycetic abscess, and as a consequence of the enfeebled resistance of the patient, the condition became grave and the prognosis exceedingly doubtful. It chanced that this was one of the few cases occurring in private practice, where the financial resources of the family were ample. The patient was removed to Southern California, where a surprising recovery occurred. The woman examined when in health exhibited no evidence whatever of the former disorder. The inhibition of the growth of the organism and its eventual elimination seem to have been the result chiefly of a change of residence.

If this result be due simply to a climatic influence, it would seem to bear out the conclusions of those who have studied the phenomena of the disease, viz.: that the organisms are chiefly effective when developing in an environment favorable to their fructification.

JAMES NEVINS HYDE.

SOCIETY TRANSACTIONS

BOSTON DERMATOLOGICAL SOCIETY.

April Meeting. Dr. Post in the chair.

A case of Lupus Vulgaris. Presented by Dr. HOWE.

This patient was shown at one of last year's meetings when the hands alone were affected; subsequently the nose became inoculated with tubercle bacilli, causing a deep red tumefaction of the lobe, in places ulcerative and crusting and with some characteristic lupus nodules at the edges. The patient is sixty-five years of age.

It was recalled that the patient has two sons also affected with tuberculosis; one with tubercular epididymitis, the other with lupus of the nose. The rapidity of the growth of the lesion was thought noteworthy, as well as the age at which the patient became affected; the latter circumstance tending to modify the belief, heretofore considerably held, that cutaneous tuberculosis appears almost exclusively in children and before forty years of age.

A case of Lichen Planus. Presented by Dr. POST.

A woman, sixty-seven years of age, was attacked with generalized pruritus seven months ago, which, after persisting for about a month, gradually subsided, and finally limited itself to the limbs. Near this time an eruption appeared on the limbs. It consisted of bright red, infiltrated papules, most numerous on the extensor surfaces, some of which had perceptibly flat surfaces, while others were both flat and angular in contour.

There was no opposition to the almost unanimous diagnosis of lichen planus in this case. Lichenoid eczema and lichenification of the skin were also considered, but only because of their relation to lichen planus.

A case of Tuberculosis Verrucosa Cutis. Presented by Dr. TOWLE.

This man came to the Skin Out-Patient Department, March 27, 1906, and was admitted to the ward the next day. The following history was obtained with some difficulty, as the patient speaks English very imperfectly.

He is nineteen years of age and single. He formerly worked in a dye-house, but has recently worked in a stable. His father is dead—cause unknown. One sister has a sore on a finger which resembles that on the patient's toe. One brother had a running sore on his thigh which

is now healed. The patient had measles in childhood, but otherwise has always been well.

Six years ago his right great toe was crushed by a hand car. Healing was very slow and he was under treatment for a long time. About two years ago, when the toe was nearly healed, a warty growth appeared just back of the nail which spread slowly, healing behind as it progressed. A second similar lesion appeared on the second toe at about the same time as the growth on the great toe, but extension has been much slower.

On admission the patient was found to be a rugged, well developed and nourished man. Internal examination was entirely negative. The skin affection was limited to the right foot and toes. The first toe was of a dusky red hue, and swollen to about twice its normal size. Over the last phalanx, covering the outer and under surfaces and extending over the tip, was a verrucous growth, firm, elevated and irregular in shape, three quarters of an inch by one and a half, which was made up of thickly set, long, angular, flat-topped villi. On the dorsum of the first phalanx of the second toe and extending upwards on the foot was a similar but more elevated lesion, one by one and a half inches, with sloping sides and surrounded by a narrow, deep red zone in which were round minute pustules. On the dorsum of the phalanx of the second toe was a third lesion, similar to the others but smaller. From between the papillae of all three lesions a small drop of sero-pus could be expressed. The amount of secretion varied considerably during the course of the disease. The lesions would be moist and bathed in serum on one day, while perhaps the next they would be perfectly dry. Twice, a large pea sized bulla filled with clear serum, formed at the edge of the lesion on the second toe and dried up in a day or two.

On April 11 a piece was excised from the growth at the base of the big toe for microscopical examination. For three days there was an abundant discharge from the wound. On April 16 the front and outer sides of the leg from the ankle to the knee suddenly become hot and swollen, while the patient's temperature rose to 102. The foot was not affected, and the wound showed no signs of inflammation. Three days later the temperature dropped to normal, and the redness and swelling of the leg subsided. Repeated examinations for blastomyces were made, but always without result. The sections made from the first piece excised showed an enormous thickening of the epidermis with an abundant cellular infiltration of the corium. Some of these cell collections were made up of connective tissue cells and leucocytes, while others were composed almost exclusively of plasma cells. No areas characteristic of tuberculosis were seen. In sections made from a later biopsy, however, Dr. Wolbach found typical tubercles and tubercle bacilli.

When the above case was presented before the Society the microscopical examinations had not been made, so that the various opinions offered were deduced from the clinical appearances alone. In addition to

verrucous tuberculosis, which formed the weight of opinion, the possibility of blastomycetic infection and lymphangioma was considered.

A case of Papulo-pustular Syphilide of Varioliform Character. Presented by Dr. Post.

The subject was a young, well developed negro. Generally disseminated over his trunk and limbs and to a less degree on his face and scalp was a profuse eruption consisting of small, firm, acuminate papules and pustules, with here and there aggregations of these lesions. The eruption had been out three weeks; the initial infection dating back six months. On the lumbar region a square patch where a porous plaster had been applied, was entirely exempt from eruption.

The striking feature of this case was its resemblance to variola; so marked, indeed, was the similarity that it was the opinion of several that in the absence of a history of the patient, with the outbreak alone presented for diagnosis, a differential diagnosis between variola and syphilis would be extremely difficult. The area on the back exempt from eruption, where the plaster had been applied, seemed to be an exception to the rule that stimulus usually augments an exanthem.

Dr. Post, who presented the case, said that on the day of the patient's first visit to the Boston Dispensary some excitement was created by the suggestion of small-pox, and that he satisfied himself of the syphilitic nature of the disease only after careful questioning.

A case of Initial Lesion of the Lip. Presented by Dr. SMITH.

Mrs. F. When seen first on March 13, a characteristic primary lesion of the lip was noted with accompanying enlargement of the submaxillary glands, a generalized macular roseola over the body and scattered crusting lesions over the scalp. There was no history of a genital lesion and the inguinal glands were not enlarged. The roseola faded completely; the present eruption appearing two months later. The existing eruption was of a fine follicular character sparsely scattered over the upper and lower extremities with also a group in triangular shape over the sacrum. Many of the lesions are capped with a scale, and some of the more recent lesions on the legs have a small zone of redness about them. There are now mucous patches on both tonsils.

The diagnosis of syphilis in this case was unanimously accepted. It was thought interesting to see the second, follicular eruption, appear so early in the course of the disease.

A case of Folliclis (?) Presented by Dr. TOWLE.

This patient, age twenty-four, single, came to the Out-Patient Department of the Massachusetts General Hospital in June, 1903, with a lichenoid eczema of the wrist, upper arm and knee. She was not seen

again until March 28, 1906, when she came with the present eruption. She stated that her father died of "eczema with hæmorrhage from the mouth" and that her mother died of consumption. Two sisters died in early childhood of unknown causes. She has two sisters living, one of whom is well; the other is under treatment for anæmia. The present eruption appeared three weeks ago as a single small red papule which grew slowly and became elevated, hard, and painful. After some days a small pustule appeared at the apex, and then the lesion disappeared slowly, leaving a scar. Other lesions appeared, one at a time, and ran a similar course. There were no symptoms except pain in the feet after long standing. There was no burning, itching or sweating. In every other way the patient considered herself well.

Examination of the heart and lungs was negative. The eruption was limited to the outer edge of the left palm, the lower legs just above the ankles, the soles of the feet and the toes, and numbered altogether not more than eight or ten lesions. On the under and outer edge of the left sole there were three lesions arranged in the form of a small triangle, but elsewhere there was no tendency to grouping. They were about one-eighth of an inch in diameter, elevated above the surface, hard, freely movable over the underlying tissue, tender on pressure. In the center was a horny plug about the size of the head of a pin, about which, in some cases, was a zone of pus. A narrow red areola surrounded the whole. On the legs just above the ankles were a few small depressed scars. While the patient was under observation a lesion developed on the plantar surface of the right big toe which went through the various stages described by the patient, attaining it's height in twelve or fourteen days. Cultures made from the pus showed no growth. A hard papulo-pustular lesion was excised from the leg for examination. It was found that the epidermis was greatly thickened and at one place formed a large pouch-like projection which pushed deep into the underlying tissues at an angle to the surface. The mouth of the pouch was open and was occupied by a large cup-shaped cavity hollowed out of the rete. Along its base was a layer three or four cells wide on an average, but at one point a narrow tongue penetrated two or three cells deeper. The cells composing this layer were without nuclei, often shapeless and broken down into large granular masses or into small round balls. Mixed in were numerous degenerated leucocytes. On the sides, the layer was only one or two cells deep. The rete cells were everywhere of great size and the inter-epithelial spaces dilated. Over the inner two-thirds of the pouch-like area they were oval, most of them very pale and with markedly vesicular nuclei. Scattered among these were deeper staining cells, so that the section had a sort of reticulated appearance. The cells in the outer third stained more deeply. The cells of the palisade layer were well preserved, but widely separated. There was marked œdema of the papillary layer of the corium. There were infiltrations of round and plasma cells, often lying in a wide-meshed reticulum,

about the vessels of the whole corium. There was also infiltration about the sweat glands. A winding, narrow canal, of uniform width, made its way from the surface nearly two-thirds across the rete, ending just above a broad band of cells which could be followed deep into the corium to end about a sweat gland. The majority of these cells were small round cells with some plasma cells, but in certain portions there were groups of epitheloid cells around what appeared to be degenerated giant cells.

The propriety of applying the name tuberculide to the above described eruption was questioned. In the history, the only statement of importance was that the mother died of consumption. The patient herself showed no demonstrable evidence of tuberculosis. That the indolent lesions described, resulting usually in the formation of a small scar, would be sufficient evidence to allow the diagnosis of tuberculosis a majority of opinion was loath to admit. However, the propriety of considering a possible tubercular association in this case was admitted.

A Case of Syphilis. Presented by Dr. Post.

The subject of this case was a man who, in October, 1905, had had multiple chancres of the penis, and also one on the lower lip. After several weeks, secondary symptoms appeared in the form of a macular roseola and pharyngitis. The roseola faded in six weeks, but a month later a second acuminate papular eruption appeared accompanied by anæmia and marked debility.

The multiple chancres and the apparent severity of the infection formed the interesting features of the case.

Vitiligo in a Negro. DR. BURNS presented a young negro, twenty-eight years of age, with generalized vitiligo. The piebald appearance was very striking, there being areas varying in size from that of a cent to that of ones palm of atrophy of pigment from head to feet and standing out in strong relief against the dark Ethiopian skin.

Dr. Howe's case of *granuloma fungoides*, presented at the previous meeting, was again shown that the beneficial effects of X-rays, which had been applied in the interval, might be noted. Where exposures to the X-rays had been made, the infiltration of the lesions was distinctly modified and in some places completely dispersed.

F S. BURNS, *Secretary.*

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

INFLAMMATIONS.

By HARVEY P. TOWLE, M. D.

Erythema Multiforme (Necrotic) in Acute Nephritis, A case of. POL-
LAND. (*Arch. f. Derm. u. Syph.*, lxviii, p. 247.)

Polland says that although much has been written about the relationship of renal disease to diseases of the skin, but very little has been said about the tendency to necrosis which such eruptions show. This tendency occurs in some cases independently of bacterial infection, and in others by infection through an already existing loss of tissue. In the case which he reports of a man of sixty, both forms occurred. The patient had never been ill before, but for a long time now had suffered from painless ulcers which, however, did not prevent his going about. Suddenly, eight weeks ago, he was seized with chills, fever and malaise which compelled him to go to bed. Five weeks later numerous blue spots appeared in the course of a few days upon the hands, feet and legs, together with papules and vesicles. The color soon changed to a blue-black, the lesions ruptured and formed ulcers. At the same time the older ulcers began to spread out and to become covered with a black-green, foul-smelling mass. The patient grew weaker and weaker and finally entered the hospital. On entrance the urine showed a sp. gr. of 1017 (24 hour amount, 800-1000 c.c.); no sugar, some indican, albumen 1 per cent. The sediment showed numerous casts of all sorts, many red blood corpuscles and renal cells. There was a pin-point to hemp-seed sized purpuric eruption on the extensor surfaces of the extremities and also sparsely on the flexor surfaces. In addition the extensor surfaces were thickly strewn with blood crusts surrounded by a grayish zone which showed a superficial elevation of the epidermis. Lying between these were papular and vesicular lesions which were especially numerous on the back of hands, fingers, feet and toes. Some were blue-black in the middle, some had adherent depressed blood crusts and others a clear vesicle. The base of these unbroken vesicles was found to be necrotic. Many, especially on the feet and legs, had become large ulcers with undermined edges and covered with a foul secretion. The contents of the vesicles showed a few pus corpuscles, degenerated red cells, fibrin and detritus but no bacteria. Cultures from vesicles were sterile.

The secretion from the ulcers showed countless Gram-negative bacilli and many Gram-positive bacilli, broad, some with plump ends and some with thin and showing in their interiors unstained places, often two together. The patient died four weeks after entrance. At autopsy a double-sided acute parenchymatous nephritis was found. The bacillus found in the secretion of the ulcers Polland believes was the bacillus of hospital gangrene. He concludes that his case was one of acute nephritis in the course of which an erythema multiforme developed; that the necrosis under the unruptured vesicles was due to the influence of the nephritis upon the tissues and was independent of bacterial influence and that there was also present an ulcerative process, dependent upon a secondary infection of the existent ulcers and of the ruptured vesicles, with the bacillus of gangrene. The source of this secondary infection was, he thought, the stable straw upon which the patient slept.

Bromide Eruptions, The Pathogenésis of. PASINI. (*Ann. de Derm. et de Syph.*, 1906, 4 s. vii., 1.)

Pasini sought to throw some light upon the etiology and pathology of the bromide eruptions about which little has been written. The case investigated showed the typical general symptoms of bromide intoxication and had an eruption made up of papular, papulo-pustular, papillomatous, vegetating and ulcerating lesions. Pasini's microscopical findings agreed with those of previous observers in all particulars save one. This exception concerned a special change in the connective tissue cells which has hitherto escaped notice. He found two stages of this change present. The first was an intermediate stage in which the connective tissue cell showed all the signs of the origin, evolution and morphology of the "*cellules écumeuse*" (Unna's *schaumzellen*). The second was the terminal stage in which the cells had acquired a new property, that of "englobing" the white cells and of exercising phagocytic powers. These cells he calls *écumophagocytes*. They are derived, he says, from the ordinary *cellules écumeuses* and like them are a product of œdematous degeneration of the connective tissue cells. Pasini considers them absolutely pathognomonic.

Various investigators have endeavored to demonstrate bromine in the lesions of the bromide eruption, but have always failed. Pasini became convinced that bromine was present, but was in combination with the albumen of the tissues from which the ordinary tests could not separate it. He found by test-tube experiments that this was actually the case. He then devised a method of separating the organic matter from the bromine and later, by the use of this method, he demonstrated the presence of bromine in the eruption. He therefore believes free bromine to be the cause. As all cases are not intolerant, he argues that in the cases of intolerance there must be a special pathological condition present. After

studying the cases published, he concludes that bromide intolerance is dependent upon a state of achlorhydria of the gastric juice.

Herpes Zoster, Pruritus as initial symptom of. BETTMANN. (*Deutsche Med. Wochensh.*, xxxii, No. 19.)

Bettmann reports two cases in which the eruption of zoster was preceded by itching strictly limited to the area over which the eruption afterwards appeared. The first case was that of a man who began to itch in November, over an area on the left side of the body at the level of the eighth dorsal, extending in a band as wide as the hand forward from the spine to the median line, where it stopped abruptly. The itching was entirely confined to this area. There was no skin eruption and nothing could be found on physical examination to account for it. During the course of weeks, certain variations in sensation could be made out over the affected area, sensation being sometimes increased and sometimes lowered. The itching was severe and continued day and night. Early in February it became more intense than usual, and a few days later a typical zoster eruption developed which was limited to the itching area. Under the administration of aspirin the eruption quickly disappeared, and with it the itching, never to return. In May, 1905, he saw a second case in which there was a marked itching confined to an area over the right scapula, under the arm and across the chest to the sternum. Except for scratch marks, there was no eruption present. Sensation was normal. After one week the itching increased and was associated with burning pain. May 25, an intense zoster eruption appeared over the itching area which just before the outbreak had become very sensitive to motion. With the appearance of the last group of vesicles, the itching disappeared completely.

Herpes Zoster, On the Presence of Kernig's Sign in. BELBEZE. (*Arch. Gen. de Med. Paris*, 1906, i, p. 520.)

Belbeze reports two cases of zoster in which the eruption was of the ordinary type, but in both of which Kernig's sign was present during the height of the eruption. Both patients were women, one sixty, the other sixty-five. In one the territory of the third and fourth lumbar nerves was involved, in the other the first and second. Kernig's sign disappeared on the fifth day of the eruption in the first case, and on the third day in the second case. Re-examination of the cases months later demonstrated that its disappearance was final.

Hydroa Aestivalis (Bazin), Experiments on the effect of light in. EH RMANN. (*Arch. f. Derm. u. Syph.*, lxxvii, p. 163.)

Sunlight has been recognized as an etiological factor in all cases reported, even though other agencies such as high or low temperature, wind, etc., may have played a part. Yet so far as Ehrmann knows, there have

never been any physical experiments made. Therefore, when the opportunity came, he tested the effects of light upon the patient in various ways. The patient was a man of thirty-one, who had had the disease since infancy. With the appearance of the warmer spring weather, the eruption would come out after exposure to the sun and also through the summer, but with the onset of cold weather, exposure lost its effect. Ehrmann exposed, as an experiment, the upper part of the upper arm, which was ordinarily covered by the clothing and which was white and smooth, to the rays of the Finsen lamp, varying the distance of the lens, using convex and concave lenses and avoiding compression. With a ten minute exposure with a convex lens at 10 cm. distance from the burning point, a wheal was produced which a week later was still red. With a concave lens at a distance of 10 cm. a fifteen minute exposure produced only a diffused redness with a slightly elevated and pale center. The third experiment was like the first except that one-half of the field was exposed to light filtered through a glass filled with borax-carmines solution. Vesicles developed on the border of the uncovered field, but the protected portion was not affected. In the fourth experiment, a convex lens was used with compression at a distance of 10 cm. with fifteen minutes exposure. One-half of the field was covered with a red glass plate 2 mm. thick. The covered half remained normal. A wheal developed on the uncovered. In the last experiment, the whole field was covered with cobalt-glass, the temperature lowered one degree below that of the room and an exposure of fifteen minutes given. A round red area resulted with a central white color which showed on the next morning a separation of the epidermis. Two days later a crust had formed and one year later a depressed-scar marked the site. As the blue medium absorbed the long waves of the spectrum and most of the heat, the result showed that hydroa vacciniforme is due to the chemically active rays and not to the heat rays. Ehrmann thinks that his experiments explain the different views held as to the beginning of the eruption. Some authors say that it begins as a small node or papule, others that it begins with a vesicle, and still others say that redness is the first symptom. The results obtained in this case show that all three forms exist, varying according to the intensity of the exposure.

Hydroa Vacciniforme. MALINOWSKI. (*Arch. f. Derm. u. Syph.*, lxxviii, p. 199.)

After briefly reviewing the cases previously reported, Malinowski describes his own case which he says is the first reported in Poland. A boy of seven had had for the past two years recurrent eruptions from March to November. Beginning as a papule, the eruption became vesicular in two or three days. Each vesicle soon showed a della and then dried into a crust. In many of the vesicles a central punctate hæmorrhage occurred. When the crusts fell, a rather deep varioliform scar remained.

The eruption came out after long exposure to the sun and attacked only the exposed parts, appearing, as a rule, about ten hours after the exposure. In two examinations of the blood eosinophiles were found to be 3 per cent. the first time and 0.5-1 the second. Microscopically the process was found to be in the rete, the stratum lucidum forming the roof of the lesion. Malinowski believes the primary process to be a necrosis of the epithelium which may involve the connective tissue below later. This necrotic mass then acts as an irritant and excites inflammation with leucocytic infiltration and œdema. As the œdema increases a vesicle forms. The vesicles were divided into chambers by trabeculæ running from the top to the bottom. These trabeculæ represented the remains of the interpapillary processes. When they dried they contracted and produced the della.

Lichen Ruber Planus of the Mucous Membrane, Della Formation in.
VORNER. (*Derm. Zeitschr.*, 1906, p. 107.)

In the ordinary descriptions of lichen planus of the mucous membranes, mention is rarely made of the della formation and the polygonal shape which characterizes the lesions on the skin. Vörner reports a case of two weeks' duration on the skin, and of a few days in the mouth. The lesions in the mouth were situated on the cheeks, lips and gums, and consisted of small nodules which were flat topped, polygonal, crowded together, but not confluent, a number of which bore in the center a grayish point. Upon drying one of the lesions, a small pin-point hollow was exposed. In the later course of the disease, the nodules coalesced and lost their polygonal shape and their dellæ. Nevertheless the della formation could be demonstrated microscopically after it had ceased to be visible to the eye.

Lichen Ruber Planus, A contribution to the therapy of. SEIFURT.
(*Arch. f. Derm.* lxxx, p. 215.)

In lichen planus verrucosus of the legs when associated with varices, Seifurt recommends the following treatment: First wash the leg, then paint on zinci oxidi, gelatine aa 25, glycerine, aq. destil. aa 50. Over this lay a thin sheet of cotton, bandage with a broad, moist gauze bandage, paint a second time, and then do the whole up in a dry bandage. The patient can then dress and go about. In one case the dressing was allowed to remain for two weeks, when it was removed and another applied which was not disturbed for six weeks. The patients also received asiatic pills in increasing doses. Seifurt claims good results from this method, which he attributes to the protection afforded from mechanical injury and to the diminution of the circulatory disturbances. He also used the zinc-gelatine paste with good results on the body to protect the part from the rubbing of the clothing and from scratching.

Urticaria Pigmentosa Maculosa, A case of. VORNER. (*Dermat. Zeitschr.* xiii, p. 274.)

In spite of the fact that the disease began in adult life and had been present only one year, Vörner thinks that the diagnosis of urticaria pigmentosa is justified. The patient was a woman of thirty-eight, on whom the eruption had appeared one year before. It was absolutely macular in form except for a period of three weeks when, after she had been under observation for fourteen months, lentil sized papules, which suggested urticaria, developed on the arms. Three weeks later these had changed to macules. This was the only time when there was any eruption even suggesting urticaria. Rubbing and scratching the macules never produced a wheal, but merely a redness. Microscopically numerous mast-cells were found in the upper cutis near the border of the epithelium and also, but less abundantly, *sternzellen* which contained more or less pigment. There was also pigment in the epidermis. With these exceptions both epidermis and cutis were normal.

BOOK REVIEWS.

Genito-Urinary Diseases and Syphilis, by HENRY H. MORTON, M. D. *Davis & Co.* 2d Edition, 1906.

This excellent work is well arranged, well printed and admirably written. The author's crisp style leaves no doubt as to his ideas, which are those of the German School. About one-third of the book deals with gonorrhœa and its complications. In the treatment of urethritis, acute and chronic, the author is most explicit and detailed.

In spite of frequent recapitulations, the student will find great difficulty in retaining his sense of proportion in reading these pages, on account of the many methods of local treatment set down. Yet it is excellent that we Americans who pay too little attention to the lesions and accurate diagnosis of chronic urethritis should have them called to our attention with special insistence.

We may comment upon a few points in which we disagree with the author's doctrine. He believes that congenital stricture at the meatus "not infrequently," by retaining a few drops of urine, causes chronic urethritis. He advises, in case one fails to find the urethra in doing an external urethrotomy without a guide, a blind puncture with Guitéras's trocar, in order to reach the limit of the canal behind the stricture. Such a procedure is surely rash and will probably go wrong in any but the most expert hands. He gives undue prominence to the Justus test of syphilis, which is clinically misleading. Misleading, too, is the double explanation of the Gram stain for gonorrhœa which is explained differently on page 37 and in the appendix. The discrepancies are only verbal, to be sure, yet such little things confuse the student surprisingly. The statement that nephrectomy for nephroptosis is unjustifiable may be accepted, but we cannot agree that the operation has a high mortality. We note the omission of any reference to nitrate of silver as a caustic for mucous patches. The advice to curette the floor of a gummatous ulcer will strike many as surprising, and may lead enterprising young surgeons to the heroic task of trying to scrape away all the diseased tissue.

Finally, it is curious to see in a book so full of detail on all other phases of the treatment of urethritis, only a few paragraphs devoted to the abortive

treatment, and no mention made herein of argyrol or of permanganate of potash. The great success which many specialists have had with these treatments is, indeed, more than matched by the pitiful failures of men less skilled; and it is doubtful whether the abortive treatment of gonorrhœa will ever be advisable except in the hands of an expert. Yet Dr. Morton, in speaking of the methodic treatment of the increasing stage of gonorrhœa, advises the injection of various silver albuminates without discriminating between their qualities and without insisting sufficiently that it is in this very ascending stage of the inflammation that their use is most dangerous and most often irritating rather than curative.

Genito-Urinary Diseases and Syphilis, by CHAS. H. HIRSCH, M. D. *Blakiston, 1906.*

This latest addition to Blakiston's series of quiz compends possesses the faults and qualities of its tribe. It is in the main concise and accurate, but it bears evidence of some haste in construction and is extraordinarily vague on certain most important points. Thus the conclusion reached as to the diagnosis of the infectiousness of chronic urethral discharges is the following: "It is safe to say from the conclusions of most authorities that after an interval of freedom from all symptoms for about six months from the time of the disappearance of the infection, the patient may be considered safe to marry."

The number of operations enumerated in the treatment of stricture is confusing rather than illuminating and results in such attempts at conciseness as the following, "By means of a dilator, the passage of which is facilitated by threading it over a filiform until the instrument is arrested at the point of coarctation. An assistant turns the thumb-screw, separating the blades, the caliber of which is noted by an indicator on the handle of the staff."

"The operator is then better able to make an incision overlying it. The advantages claimed for this instrument are that it not only fixes the urethra in one position, but is made permanent by the expanded blades."

A similar confusion results in the attempt to express concisely the details of so complicated an operation as cryoscopy. Indeed exhaustive classification and ineffectual explanation are the grave faults of the book.

Syphilis du Poumon chez l'Enfant et chez l'Adulte, by DR. BÉRIEL. *Steinheil, Paris, 1907.*

The production of a series of manuals in which is collected all the literature upon a given phase of syphilis, is a most important and timely work. Dr. Bériel's volume, like that of Dr. Terrien on Syphilis of the Eye, which preceded it, is exhaustive, well illustrated, and supplied with an admirable bibliography. Such a work reminds us that syphilis of the lung, though rare enough, is assuming a definite pathological aspect; but, unhappily, the clinician will look in vain in this book for very definite diagnostic features other than the familiar ones of antecedent disease, or concomitant lesions elsewhere in the body, the absence of tubercular bacilli and the diagnostic effects of a course of treatment.

The concluding paragraphs of the book are the most amusing and not the least instructive: "This monograph cannot be better concluded than by the delightful tale of the sick man of Brambilla which Astruc reports as follows: 'A syrup was ordered for a consumptive in desperate straits but, by a mistake on the part of the apothecary, the syrup was given as an inunction to a venereal patient and the consumptive took mercurial ointment instead of his syrup. Never suspecting the mistake, he took, two or three times a day, a piece of this ointment about the size of a small nut and was radically cured, to the great astonishment of the physician who learned afterwards, by chance, how the thing had happened.'

"It has been remarked that, even in those days, apothecaries made mistakes in compounding, and syphilis of the lung will, for many days to come, cause us to make mistakes in diagnosis."

Jahresbericht über die Leistungen und Fortschritte auf dem Gebiete der Erkrankungen des Urogenitalapparates. Edited by NITZE, JACOBY and KOLLMAN. Karger, Berlin, 1906.

Here is an admirable venture, an annual cyclopædia of all publications in the domain of urology for the year 1905. This first volume opens with an appreciation of Nitze's work: then follow over 350 pages of extracts divided under the main headings of Anatomy, Physiology, Pathological Anatomy, Symptoms and Treatment, Urinalysis and Bacteriology.

A comparison of the extracts with such originals as we have at hand, shows them to be both concise and intelligent. Most of the citations are, of course, German. Yet important contributions from other nations have not been neglected. In the first three sections there are 79 German authorities, 30 French, and less than 10 from any one other language.

This book is a compilation which no librarian or urologist can fail to be without.

RESOLUTIONS OF RESPECT

TO THE MEMORY OF DR. CHARLES WARRENNE ALLEN.

The New York Dermatological Society takes cognizance with deepest regret of the passing away of one of the Society's esteemed members, Dr. Chas. W. Allen, whose untimely death in Gibraltar in May, 1906, came as a great shock to his many friends and colleagues. Dr. Allen, whose genial disposition endeared him to all, had been a member of the Society since 1885, and will be greatly missed as he always took an active part in scientific work and in discussion. His death marks the first in the list of active members of the Society in many years, and his loss is especially unfortunate to his colleagues on the eve of the International Dermatological Congress, as his wide acquaintance among European medical men and his ready command of the French and German languages especially fitted him to act as one of the hosts.

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SYRINGOCYSTOMA.

By CHARLES J. WHITE, M. D., Boston.

Instructor in Dermatology in Harvard University.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

IN July, 1903, Miss U. was referred to me by Dr. G. T. Schwartz of Providence. The patient, now twenty years of age, is a college student, and the following history is taken from a personal letter describing her cutaneous condition:

“The blemish was first noticed during the course of a four weeks’ illness in October, 1896, when I was ten years old. We are then living for a year in a very dry climate in South America, at an altitude of 8000 feet. Since then the patch must have grown somewhat, for it covers a slightly larger area than when first noticed and the separate nodules seem to have spread and run together to some extent. I cannot name any definite time when this change occurred, but in 1904 more spots appeared higher up toward my chin, the nodules being smaller than in the old area. I had just spent several weeks in Colorado, in a high, dry climate. Since then I have noticed no particular change. The patch appears rather red, except when I go for a long time without any collar against it, and sometimes it itches a little. The same condition exists under the armpits on both sides, extending a little beyond the front of the arms, but I do not know how long it has been present in this region. As to perspiration on or near my neck, I have noticed sometimes that the front of my neck grows damp in warm weather, but elsewhere, especially under the arms, I do not perspire so much as many other people.”

This intelligent letter presents in a lucid manner the history of the subjective symptoms of this strange condition, and one of the most striking facts recorded is the origin of the disease and the well-

defined exacerbation of the process on two different occasions when the patient was living at high, dry altitudes once in the Andes and again in the Rocky Mountains. I regard these phenomena not as mere coincidences, but as distinct factors in the interpretation of the nature of the tumors.

When first seen by me, the patient was in good health, well nourished, and complained of no pathological condition, save her cutaneous eruption, which covered nearly the whole front and side of the neck, as seen dimly in the photograph (Fig 1), and the anterior half of each axilla. There were no lesions elsewhere on the body. The eruption seemed to follow the transverse lines of cleavage and consisted of nodules individually pin-head to split-pea in size, but by coalescence, often considerably larger; separately roundish, but by growth and by fusion elongated and irregular in shape and uniform, flat and perfectly smooth on top; fawn colored to yellow in tint; moderately soft in consistency. Subjectively, there were no symptoms, and physical disfigurement alone, led the patient to consult a physician.

The diagnosis of such a condition was naturally a difficult one. Tuberculides, unusual keratoses and xanthomata were considered, but soon excluded for reasons which appear in the history and in the clinical description. Some unfamiliar change in the sebaceous or sweat apparatus, myomata, colloid degeneration, the pseudo-xanthome élastique of Darier,⁴⁵ were next thought of, but the great number of the lesions and the absence of paroxysmal pain seemed to exclude myomata;⁴⁷ while the abundance, the opacity and the unusual site of the lesions, the youth of the patient and the fact that a long life had not been spent in the open air ruled out the possibility of colloid degeneration.⁴⁸ Finally, the absence of any especial predilection on the part of the lesions to affect the flexures, and the fact that the nodules were not livid at first, that they were not surrounded by a violaceous base, that they did not itch, that the affected area was not relaxed and less elastic than usual, and that there was no pigmented follicular depression, proved that the idea of pseudo-xanthome élastique could not be entertained.

Benign cystic epithelioma as the proper title, was not considered as the two or three cases in my previous experience were quite dissimilar to the eruption now under observation. The question was, therefore, left to the decision of the microscope and the piece for examination was excised from the neck and prepared in the usual manner.

HISTOPATHOLOGY

The epidermis shows but few and unimportant changes. The stratum corneum consists of a few layers of normal cells. The stratum granulosum is reduced to a single layer of much attenuated, a-granular elements. The rete is composed of cells with large vesicular nuclei, some showing but little cytoplasm, others perinuclear halos.

It is in the corium that the essential pathological changes are seen. The papillary and subpapillary layers are quite normal and exhibit rather an unusual lack of inflammatory signs. There is practically no dilatation of the vessels and no extravasation of cellular elements from their walls, in fact the vascular system is very poorly developed. Elastin is present, perhaps slightly diminished in quantity in this part of the skin, but lower down the elastic elements appear normal in all respects.

From a line just below the subpapillary layer of the corium to a level slightly above the panniculus adiposus, one finds the actual pathological lesion. Within this area, regularly bounded above and below, but irregularly limited on the sides, appear clusters of epithelial cells forming bodies of various shapes, while the supporting corium exhibits certain tinctorial changes characteristic of collagenous degeneration, *i. e.*, throughout this abnormal area the fibrous tissue receives to a moderate degree the basic stains. (Fig 2.)

These unusual structures observed within this area of slightly abnormal fibrous tissue are composed of masses of epithelial cells in every essential comparable with the cells which form the walls of the hair follicles and of the sweat glands and ducts. There is no evident cement-substance and no encapsulating wall of fibrous tissue to be seen. They are, indeed, purely epithelial structures of varying forms.

Close study of very many of these epithelial masses leads one to the following interpretation of their evolution: A cluster of eight to ten epithelial cells is the earliest type of the lesion to be seen (Fig. 2), but vigilant search through a limited number of serial sections fails to reveal the origin of these cells, except perhaps in one instance to be described later. It seems plausible to regard them as a process budding from some similar epithelial structure, but no such tangible connection with the hair follicles or the sweat coils can be revealed in any of the sections examined.

Search for any down-shoot from the rete or connection with any of the tunics of the vascular walls, theoretically inconceivable from embryological grounds if we are to regard these cells as epithelial, is also impossible to demonstrate.

Once formed, the epithelial clusters seem to grow, for larger similar groups of cells are abundant. (Fig. 2). Very soon, however, a change can be noted in the center of these larger clusters. Round, a-nuclear spaces with well-defined walls and translucent, somewhat granular cytoplasm appear (Fig. 2). In still larger clusters these central degenerations recede still further, leaving a true lumen with occasional round, swollen, translucent, granular cells (Fig. 3). A further stage in this cystic process reveals a true cyst with perfect walls, and for the most part an empty lumen (Fig 3), although here and there a small mass of minutely fine, granular débris may be seen against one side of the wall (Figs. 4 and 6).

Thus far reasoning is founded on firm ground, but the following inductions from the sections studied are based on possibilities rather than on facts.

First of all in importance is to prove, if possible, the exact nature of these new epithelial formations. From what do these buds spring? With what organs are they connected? In other words, what are they?

I believe that these new growths have no connection with the pilo-sebaceous apparatus, because no visible, palpable conjunction can be demonstrated in this series of sections and because the only hair follicle and sebaceous gland apparent in the tumor are quite sound and far to one side of the abnormal area in every slide examined.

I believe that these new growths have no connection with the rete because one can observe no tendency toward irregularity in the basal line of this layer of the epidermis, no solution of continuity in its outlines, no apparent marked deviation from the normal in the structure of its lowermost cells, and no accentuated karyokinesis. Furthermore, the interspaces dividing the rete from the uppermost epithelial cysts or buds is a large one and no actual communication between the two structures is anywhere even suggested.

I believe that these new growths do not arise from the sweat glands for no actual connection can be demonstrated in any section, and because the coil glands, very abundant in all the slides, exhibit no budding tendencies and no marked abnormalities of any sort.

What, then, have we left, for we must surely connect these new

structures with some existing epithelial elements or else fall back upon the possibly less likely and more hypothetical "cell rests?"

I believe that these new growths are hypertrophic and hyperplastic elements of previously existing efferent sweat ducts. I base this belief on the following facts which my sections reveal:

The anatomical structure of these new elements is in every way similar to that of normal sweat ducts. These new elements are found in the well recognized path of the normal efferent ducts. Certain sections (Fig. 5) reveal an almost certain continuity of duct (markedly dilated) quite compatible with our well-accepted ideas as to the spiral convolutions of normal excretory sweat channels. Other sections disclose various formations suggestive of this same tortuous passage upwards, while one figure (Fig. 6) gives the clue perhaps to the nature of this disease so long under discussion. Here will be seen a comparatively long tubule of epithelial cells in the path followed by normal sweat ducts. This tubule soon sends off a small branch at whose tip can be seen a terminal cyst quite similar to many others in these sections. Have we not here then (in such formations as are shown in Figs. 5 and 6), a definite answer to this long disputed question as to the origin and the nature of at least one class included in this many-titled disease?

There are, however, certain flaws in this argument. First, these sections fail to disclose any actual connection between the new epithelial processes in the mid-corium and the underlying sweat coils; and, second, it has been equally impossible to recognize any similar physical connection with the surface of the skin, either by visible continuity through the subpapillary and papillary layers of the corium, or by the typical lacunæ through the epidermis. There should be no objection to this latter discrepancy, because one may recall in the clinical history of the case that local hypohidrosis had been observed by the patient; and again, because such unusual hyperplasia and cystic formation on the part of the ducts might well lead to atresia higher up in the tubules. On the other hand, however, if total or partial stoppage to the flow of perspiration is present in this case, should there not be cystic dilatation or other pathological changes in the sweat coils, and such conditions were not noted in these investigations.

Despite these objections, I believe, as stated above, that this particular example of benign cystic epithelioma deserves the title syringocystoma, for the microscopical study of its sections suggests strongly that it is a tumor of the efferent sweat ducts, followed by

cystic dilatation. With this interpretation in mind let us revert for a moment to the patient's unbiased history of the disease. It will be remembered that the first appearance and the exacerbation of the process were observed during sojourns in the high Andes and in the high Rockies. Let us also remember that Mosso ⁴⁹ states that perspiration in the Alps is less than at the sea level and that it is probable that on high mountains the skin vessels are less dilated and the cutaneous circulation, like the sweat secretion, is less active. And finally, let us bear in mind that sweating over the affected areas in this case is less than in other parts of the body.

The study of this disease from a retrospective point of view, reveals at once the utter confusion which exists in the minds of both clinician and clinico-pathologist in regard to its identity. The bibliography appended to the present contribution gives one a striking idea of the various conceptions of past writers. The clinician describes new growths in the skin of almost any part of the body save the scalp, the ears, the nose, the genitalia, the palms and the soles; and these growths vary in size from a pin's head to a hen's egg, and in color from glistening white to yellow, brown or red; and they may be hard and elastic or firm or soft, and their surface may be smooth or verrucous or papilliform or even ulcerated. The clinico-pathologist, in his turn, regards the tumors as a *nævus*, an *epithelioma*, an *endothelioma*, a *celluloma*, an *adenoma*, a *cystadenoma*, or an *acanthoma*; and may ascribe their origin to the *rete Malpighii*, the hair follicles, the sebaceous glands, the sweat glands, the sweat ducts, or to the endothelium of blood or of lymph vessels.

From the perusal and study of these valuable but conflicting investigations it is evident why their synthetic authors have seen fit from clinical or pathological grounds to attach these various units to one unwieldy, complicated whole, and it would be a very valuable contribution for some future careful analytic writer to digest thoroughly this mass of data into its component parts and distribute its various elements to the niches in dermatology where they properly belong.

Our best treatises on dermatology should no longer group all these various entities under the heading of benign cystic epithelioma. Dermatologists should not be willing in future to teach their followers that the hard, glistening, white, sound or ulcerating tumors of J. C. White's case,¹⁹ are identical with the small, *café au lait*, flat nodules of medium consistency of the present example, or with the

congenital exfoliating verrucous growths described by Kreibich,³⁷ or the nævus-like masses of Petersen,¹³ Rolleston³⁵ and Robinson³⁹; nor should these same teachers continue to say that the tricho-epitheliomatous cases of Brooke¹² and of Hartzell,⁴³ and the histologically similar new growths of rete origin of Fordyce,¹⁴ J. C. White¹⁹ and Csillag,⁴⁰ arise from the same source as the endothelial tumors of Jarisch,¹⁸ Kromayer,²² Elsching,^{24 27} Wolters³¹ and Guth,³³ or to class them in origin and source with the sweat tumors of Jacquet and Darier,⁴ Török,⁵ Neumann,³² Brauns³⁶ and Fiocco.⁴²

In closing, therefore, let me recapitulate the findings of those with whom I am in accord in attributing the origin of their cases to the sweat apparatus, in the hope that this small group will serve as a beginning for the future proper partition of this present unscientific classification of many somewhat analogous new growths.

The lesions in the case of Jacquet and Darier⁴ began as papulo-tubercles over the clavicles of a lad of sixteen, and in the course of eight years, appeared in large numbers on the chest and near the axillæ. They were oval, smooth, rosy nodules, with their long axes transverse, and caused no discomfort. Pathologically, they appeared in the midst of a thickened corium as epithelial, cylindrical, ramifying prolongations, which on section showed canals and cysts containing amorphous matter. These newly formed elements did not reach the epidermis or the hypoderm and were not enclosed in a capsule. Darier was never able to establish direct connection between these tubules and the sweat apparatus: but as it was equally impossible to demonstrate their growth from the other epithelial elements of the skin, the double layer of cells about a central channel and the facts gleaned from serial sections, forced him to ascribe their origin to the sweat ducts.

Török⁵ described new growths in the skin very akin both clinically and pathologically, to those of Jacquet and Darier. He also was unable to prove positively that the tumors arose from the sweat apparatus, but diminution in the number of the sweat ducts present and certain other phenomena noted, induced him to declare his belief that the new structures had developed from embryonal rests.

Neumann's³² case was clinically similar, although of wider distribution, and he was able to demonstrate the important phenomenon that the administration of pilocarpin produced no perspiration over the nodules, while sweating in the surrounding healthy skin was

normally abundant. Histologically, the nodules showed some differences from the foregoing cases, consisting of lengthening of the rete plugs, dilatation of the vessels and hypertrophy of the sebaceous glands and arrector muscles. Nevertheless, Neumann was able to convince himself that the process was an affection of the sweat ducts, with or without modification of the sweat coils.

Brauns³⁶ described an unusual case where some of the tumors present reached the size of a hazelnut. On section, he was able macroscopically to note large cysts and microscopically to establish a direct connection between one of the large cysts and a sweat duct, and he therefore concluded that one must regard this condition as a congenital, wide-spread adenoma of the sweat apparatus, with secondary cyst formation.

Fiocco's⁴² case was somewhat dissimilar clinically from the others just recapitulated, but he convinced himself that the tumors were undoubtedly connected exclusively with the sweat organs and stood in no relation whatever with the other structures of the skin.

With these five authors I have allied myself and called my case syringocystoma.

First, because clinically it is similar.

Second, because functionally the secretion of sweat in the affected areas is less than elsewhere on the body.

Third, because physiologically, it is admitted that high altitudes influence the sweat apparatus and

Fourth, because pathologically it is most probably a new growth and cystic dilatation of sweat ducts.

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DESCRIPTION OF PLATES.

- FIG. 1. Illustrates the character and size of the lesions on the neck.
- FIG. 2. Illustrates the full depth of the skin, showing the sweat glands below and the numerous cystic dilatations of the ascending sweat ducts. The larger spaces are mostly artefacts. Note the paler staining area of the corium enclosing these abnormal structures.
- FIG. 3. Illustrates the earliest stages in the evolution of the process. To the right is the initial cellular bud. To the left is a larger group of cells in the midst of which the cystic degeneration is taking place.
- FIG. 4. Illustrates more advanced stages in the evolution of the cysts. Above, the cellular walls still persist in the lumen. Below the central cystic degeneration is complete.
- FIG. 5. Illustrates several buds attached to previously existing efferent ducts (?), two cysts with central colloid debris; the pathological collagen; and a transverse vessel.
- FIG. 6. Illustrates the almost certain connection of this tumor with the sweat ducts. Note the successive cross sections (markedly dilated) of the ascending duct. From two of these cystic dilatations excentric cellular proliferation can be seen.
- FIG. 7. Illustrates the structure of the cellular branches and the cysts with their colloid contents.



FIG. 1.

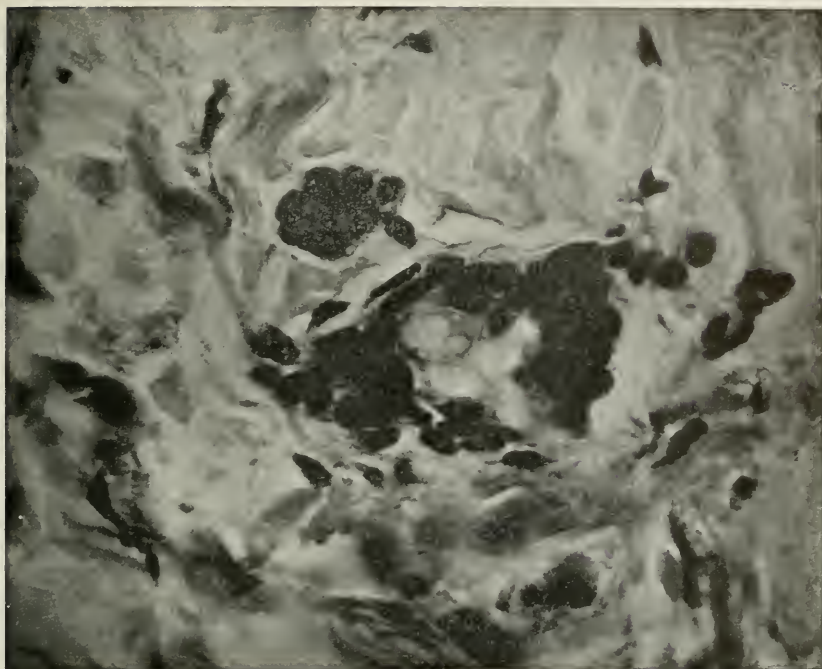


FIG. 3.

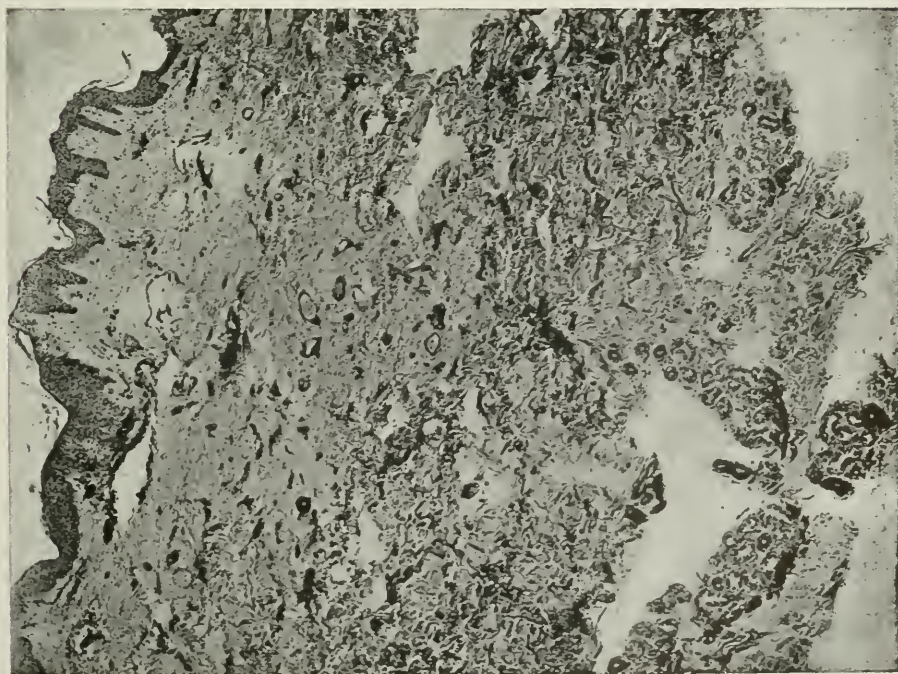


FIG. 2.

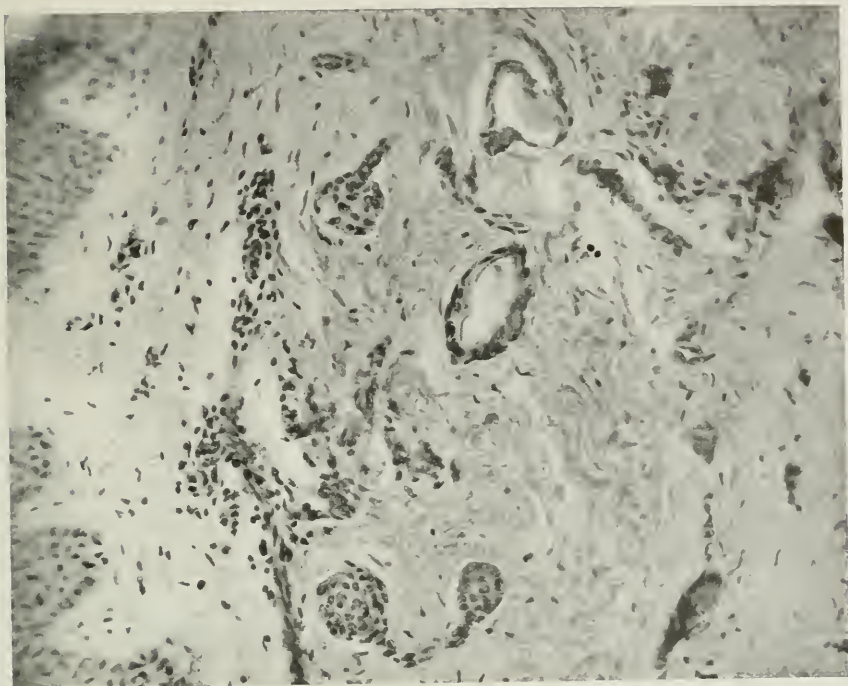


FIG. 5.

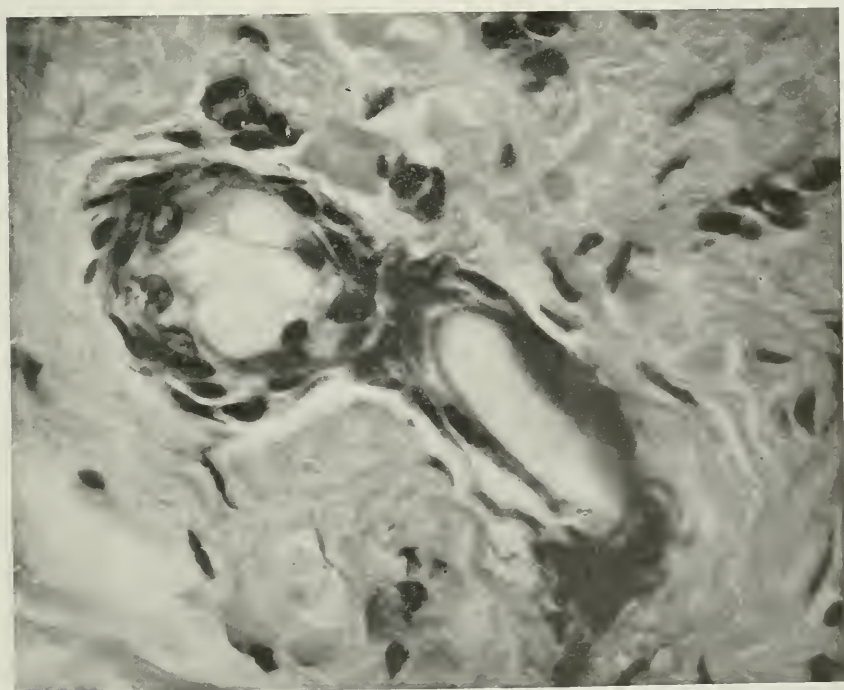


FIG. 4.

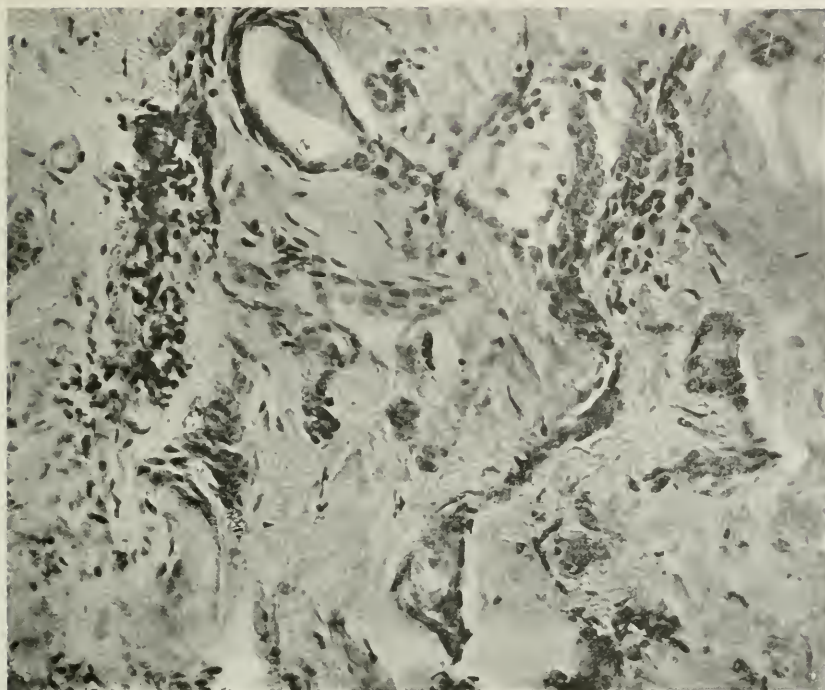


FIG. 7.

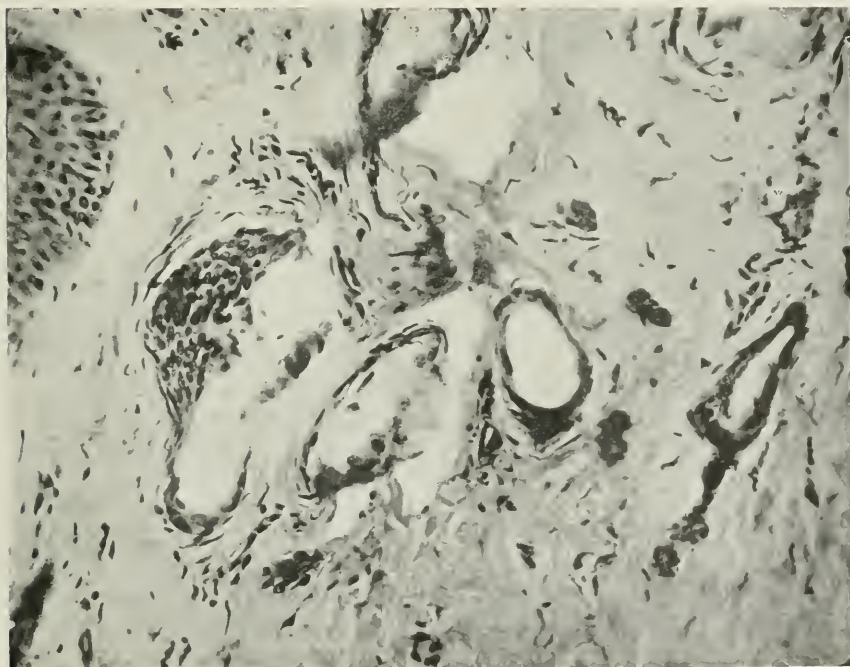


FIG. 6.

5
2
2



FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.

DISCUSSION.

The President, Dr. Hartzell, said that in a paper which he published on this subject about two years ago, he took the position that all the various cases of this kind that had been reported probably represented one and the same disease. While the lesions differed clinically and also microscopically, he believed the latter feature might be explained by the fact that they took their origin in different parts of the skin. In the vast majority of cases that had been reported, he did not believe that the writers had succeeded in demonstrating the connection of the neoplastic epithelium with the sweat glands or the blood vessels. In the case reported by Neumann, the illustrations that accompanied it were so exactly like those in the speaker's own case, that he believed they demonstrated beyond doubt the identity of the two cases, it being demonstrated in his own case that the neoplastic epithelium had its origin in the follicle. Jacquet and Darier were unable to demonstrate any connection whatever between the lesions and the sweat gland apparatus, and he thought they afterwards agreed that no such connection existed. In the case reported by Török, he did not succeed in demonstrating any connection with the sweat gland apparatus. He fell just short of doing that.

In his own case, of which Dr. Hartzell showed some photo-micrographs, it was quite easy to demonstrate that the newly formed epithelium took its origin from the hair follicles. Furthermore, it was also quite apparent that the cysts had their origin in the hair follicles. In the Perry-Brooke-Fordyce case the neoplastic epithelium had its origin from the epidermis.

Dr. JAY F. SCHAMBERG said he agreed entirely with Dr. Hartzell that there had been too much grouping of various cutaneous tumors under one or similar titles, which were looked upon as synonyms. The speaker showed a clinical photograph and photomicrograph of a case which he regarded as a benign cystic epithelioma of the type reported some years ago by Dr. James C. White, and which he looked upon as clinically and pathologically distinct from the case reported by Dr. Charles J. White. Neither the photograph nor the microscopic sections showed any similarity to the lesions described by Drs. Hartzell and White. The tumor mass was made up of a number of large cysts, with alveoli closely resembling those of the lungs. The origin of the growths in this case was not definitely determined, although there were epithelial nests lying close to the rete mucosum.

Dr. JOSEPH GRINDON was sorry that Dr. Fordyce, as the American representative of the Perry-Brooke-Fordyce type of epithelioma adenoides cysticum, was not present to participate in the discussion. The speaker showed three photographs of a case which was quite of the same type as the Perry-Brooke-Fordyce cases, and which illustrated how markedly it

differed from Jacquet-Darier's *hydradénome éruptif*. The latter authorities finally came to the opinion that they were dealing with an epithelioma, and that it had no connection with the sweat glands. The Jacquet-Darier is probably the same lesion as that described by Kaposi under the title "lymphangioma tuberosum multiplex," which Kromayer, Jarisch, Gutti and Wolters regard as a hæmangio-endothelioma.

Dr. White's case did not present the features of the presence of lesions on the face and scalp, or the symmetrical grouping, seen in epithelioma adenoides cysticum. In the latter affection there was often a small, gray dot in the smaller lesions and a vesicular appearance of the larger ones. Upon puncturing one of these lesions in his case the speaker had obtained nothing but a drop of blood. He had brought with him some sections which were similar to those shown by Dr. Hartzell, excepting that the basal layer of cells in each one of the rests was quite similar to normal basal epithelium. They also showed, as had already been pointed out by Fordyce, that many of the cell rests were connected by little strands of epithelium passing from one rest to another.

Dr. HENRY G. ANTHONY said that the case of which Dr. Schamberg showed a microscopical section, was identical in its histopathology to a case reported by Kreibich as a case of "Adenoma Folliculare Cutis Papilliferum" (*Archiv* vol. 70, p. 1). Clinically, the cases differ. Kreibich's case was unilateral; the tumors were cystic and larger.

Dr. THOMAS C. GILCHRIST called attention to the branching between the epithelial cells, and said he had observed the same thing in skin that was apparently normal, especially in the scalp of children.

Dr. CHARLES J. WHITE, in closing the discussion, said he thought the lesions in the case reported by Dr. Hartzell were very different from those in his own case. The cysts were found very superficially in the skin, and were not situated in the deep layers of the corium. In one of the lesions shown by Dr. Hartzell, there was a lamellated structure suggestive of horny layer, which was not present in his own case. In his own case there were histologically no follicles present excepting on one side of the section, whereas in Dr. Hartzell's case the follicles were very abundant. There were certainly marked differences between the two cases.

Dr. White said he was sorry that nothing was said in the discussion as to whether he was justified in giving the title of syringocystoma to his paper. The lesions were probably connected with the sweat gland apparatus.

ELEPHANTIASIS OF PENIS AND SCROTUM DUE TO SYPHILIS.

By A. RAVOGLI, M. D., Cincinnati.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

THE report of this clinical case confirms the views of Hill,¹ that Elephantiasis in our country is not of very rare occurrence, and is more frequently found amongst the colored race. It is only sporadic, with no relation to fliariasis, and in the few cases which we have had under our observation, syphilis was at the bottom of the affection. Luitheln² calls attention to the fact that even in the countries with endemic elephantiasis, other etiologic factors, such as trauma, and above all syphilis, take an interesting part in its production Mracek³ has already described a case of elephantiasis produced by a diffused hypertrophic syphiloma.

Elephantiasis of the male genitals is known to be second in frequency, because the lower extremities are more frequently affected.

The history of our case was written by our hospital interne, Dr. A. T. Heavenrich. The patient was a colored man, born in Virginia, thirty-one, very robust and well developed. In 1903 he had been a resident of the hospital for a swollen and œdematous penis. He had paraphymosis, and around the scrotum a papular syphilitic infiltration. Two years previously he had seen a sore on the glans, which had healed up, and he had taken no treatment.

In the hospital he was operated on for the paraphymosis, and received antisyphilitic treatment, but as soon as he was better he left the institution.

Since he left the hospital, his condition gradually became worse, and penis and scrotum had gradually grown larger.

On February 16, 1906, he was readmitted to the hospital in the following condition:

The skin of the penis is greatly enlarged so that it measures $11\frac{1}{2}$ inches in circumference. The foreskin is hard, enlarged, irregular, darkly pigmented, encircling the glans, which is of the normal

¹ Hill. Elephantiasis. *Med. News*, June, 1894, No. 26.

² Luitheln. Elephantiasis. *Handbuch der Hautkrankheiten*, Mracek, III B. Wien., 1904.

³ Mracek. Die Elephantiasis in folge von Syphilis. *Wiener Klin. Wochenschrift*, 1888, No. 12.

size. The skin is hard, indurated, unevenly hypertrophic on the whole corpus penis, with warty-like protuberances, extending to the pubis and down to the folds of the groins and on the scrotum surrounding the penis. The skin of the radix penis, on the inferior region, although thickened and hard, is thin, destitute of pigment and of cicatricial type. The penis here is constricted as in a narrow cicatricial ring, which soon ends on an ulcerated, granulating surface on the scrotum. From this surface of the scrotum a profuse discharge of serum takes place, with a nauseous offensive odor, which constantly moistens the dressing and clothes.

The inguinal glands are somewhat enlarged, freely movable.

Starting from our diagnosis of infiltrated diffused syphiloma of the scrotum and of the radix penis when the patient was admitted the first time into the hospital, we maintained that syphilis was the cause of the elephantiasis. In consequence he received injections with gray oil, internally, potassium iodide, and locally continuous bathing with solution of 1 to 2000, of bichloride of mercury. The improvement was very slow, and an operation was decided upon.

A metallic sound was kept in the bladder as guide while operating. With two incisions starting from the frenum in a triangular shape, the derma was superficially dissected, forming two flaps so as to cover up the penis again. The elephantiasic tissues were carefully removed until the corpora cavernosa and spongiosa were entirely cleared, then with the flaps they were again covered. The hard elephantiasic area of the scrotum was circularly removed and the resulting wound was covered with skin grafts taken from one of the thighs.

The whole was dressed with tissue paper and bichloride gauze. A permanent catheter was left in the bladder to prevent soiling the dressing. When the wound was opened the grafts were in a very good condition. In the following days the grafts began to die and the flaps also to slough off from accidental infection, so the dressing was changed to iodoform gauze and the catheter removed. The whole penis was healing up fast and the wounded surface was covered with new scar tissue, thin, soft and regular. Operation was performed on March 3, and on April 4 the cicatrization was perfect and the dressing was stopped, and on the 12th he left the hospital.

Part of the removed skin was hardened in 4% solution formalin and then in alcohol, mounted in celloidin and cut in sections for microscopic study, which was done by my assistant, Dr. George H. Werk.

From their study it is shown that the epidermis is thickened and hypertrophic, especially in the stratum spinosum and granulosum. Between the epidermic cells and near the stratum lucidum abundant leucocytes are often found. The horny layer also shows alterations.

The papillæ are somewhat enlarged and are studded with a great amount of infiltrating cells. Towards the epidermis a line of pigment granules and chromophore bodies are found in a great quantity. Their blood vessels are enlarged, showing congestion of the superficial capillary net. The same enlargement of the blood vessels is found in the subpapillary layer, which also shows a thick cellular infiltration. The presence of the congestion, especially of the veins, was strongly dwelt on by Unna,⁴ and considered as the most effective cause of the lymph stasis.

In our specimens there is clearly shown a diffused ectasic condition of the lymph vessels and of lymph spaces, and some seem to be in an obstructed condition, according to Nasse, Langhans and Wegner. The lymph vessels are closed by fibrinous coagula, showing a local obstructive process. The veins are also enlarged and their congestive condition must have great influence in the stasis of the lymph. The infiltration is mostly apparent around the artery, where the walls are so much thickened as to remind one of the peculiar alterations of the blood vessels produced by a syphilitic process. Large quantities of plasma cells form a kind of a wall around the vessels, showing that the infiltration is the cause of the swelling of the connective tissue elements. When we see the blood vessels in their course, the infiltrating elements are found alongside of the vessels.

Another section shows connective tissues greatly enlarged, and the elastic fibers somewhat in diminution. This specimen was stained with orcein and then decolorized with hydrochloric acid for elastic fibers. In other specimens stained with Unna polychrome blue and decolorized with Grübler's ether glycerine mixture, the plasma cells show much more perceptibly, demonstrating the tendency to the neoplastic process of the elephantiasic tissues as already maintained by Török. Indeed, the long lasting lymph stasis may produce progressive changes, as shown by the presence of mast and plasma cells, and of the accumulation of pigment. From the congestion of the blood and from the stasis of the lymph, the tissues of the skin so imbibed, start to proliferate. Rossi⁵ from the study of elephantiasis, came to the

⁴ Unna, *Die Histopathologie der Hautkrankheiten*, 1894, p. 929.

⁵ Rossi. *Ricerche Anatomopatologiche sulla Elefantiasi acquisita*. Istituto di Anatomia Pat. R. Univ. di Napoli. *Ref. Arch. f. Derm. und Syph.*, No. 27, p. 266.

⁶ Nasse. *Über Lymphangiome*. *Chir. Arbeiten aus Bergmann's Klinik*. Bd. IV., 1, 1890.

⁷ Langhans and Wegner quoted by Unna l. c.

⁸ Török. *Über die Kapillaren Lymphangiome der Haut*. *Monatsh. f. Derm.* Bd. 14, S. 169.

same conclusion, namely, that it is not the simple stasis but a chronic inflammatory process, which causes the proliferation.

Riedel,⁹ Lewin,¹⁰ Luicken,¹¹ Stern,¹² and others have referred to cases of elephantiasis of the penis and of the scrotum as a consequence of the removal of the inguinal glands. In our hospital practice, we remove inguinal glands quite frequently on account of enormous bubo due to mixed infection, and in many cases we have observed the œdema of the penis and of the scrotum as a result. In all our cases, however, this œdema has been only temporary, for it has lasted only a few days, and the skin has returned to its normal condition as soon as the circulation of the lymph has been restored.

In another case of elephantiasis of the leg and foot in a woman, where the limb had attained enormous proportions, she was suffering with repeated attacks of lymphangitis. The recurrence of the inflammatory process suggested the possibility of a streptococcic infection, such as had been found by Marcacci, Mathieu, Richardiere, Sabouraud, Moncorvo, Martin Gil, Kaposi, Lang, Balzar, and Michaux. Yet the bacteriologic examination made in the Pathologic Institute of the hospital failed to reveal the presence of the streptococcus. In this case we could find a good explanation in the studies of Maurel on the rôle which the leucocytes play in the presence of some physical and chemical agents. The leucocytes in the animal tissues in the presence of certain toxic substances die, and their bodies are capable of producing alterations in the tissues, just like parasitary agents coming from the outside. While a new host of the same leucocytes rallied by new vigor may come to the rescue and remove from the tissues the bodies of the dead leucocytes and restore the tissues to health.

In the case that forms the subject of our study, we had no recurrent erysipelas, and the morbid process seems to rest on a chronic inflammation and on the congestion of the blood vessels, and on the stasis of the lymph, caused by syphilitic infiltration. Pelagatti¹³ studied an elephantiasic arm which was amputated. He found the humeral artery hypertrophic in its walls, irregular, and its lumen

⁹ Riedel. Dauernder Oedem und Elephantiasis nach Lymphdrüsen extirpation. *Langebeck, Arch.*, 1894.

¹⁰ Lewin. Berlin Derm. Verein 12 May, 1896. *Arch. Derm. und Syph.*, 36, p. 242.

¹¹ Luicken, H. Elephantiasis nach Lymphdrüsen Extirpation. *Ref. Derm. Zeitschrift*. X p. 326.

¹² Stern. Wiener Derm. Gesellsch. *Ref. Derm. Zeitschr.* 5 p. 683.

¹³ Pelagatti. Sulla Patogenesi dell Elephantiasi. *La Clinica Chirurgica* No. 11, 1903. *Ref. Giorn. Ital. mal. ven. e delle pelle.* 1904.

somewhat narrowed. The cubital artery was nearly obstructed and the veins were plugged up with thrombi. He concluded that the elephantiasis is not due to a simple stasis but to an inflammatory process, chronic, persistent and progressive, which is developed in the blood vessels and more especially in the veins and the lymphatics.

In a case of elephantiasis of the penis and scrotum, referred to by Fenger,¹⁴ the thickening of the blood vessels and especially of the veins, was the most striking feature, together with the enlargement of the lymph spaces and of the lymphatic vessels.

Cases of elephantiasis due to permanent constriction have been reported by Shepherd¹⁵ and by Stravino.¹⁶ In the first a wound of the penis, with resulting urethral fistula and scar, in the second a urethral stenosis, were assigned as the causes of stasis and of the elephantiasic condition. Rotschild¹⁷ also referred to two cases of elephantiasis developed in consequence of fistula of the urethra. In these cases the scar had produced congestion and stasis, the presence of the urine had produced irritation and lymphangitis causing proliferation of the connective tissues, to the enormous proportions of elephantiasis.

So far syphilis has not been often mentioned as one of the factors of elephantiasis. Calderone¹⁸ referred to several cases of elephantiasis, and in his fourth case of elephantiasis of the penis and scrotum with lymph scrotum, denies syphilis to be the cause of the disease, in spite of the history of the ulcer of the penis, where the elephantiasic condition commenced.

Bandler¹⁹ referred to the syphilitic process, especially of an ulcerative nature, and to tertiary manifestations in the form of diffused syphiloma, the elephantiasic condition of the external genitals and of the rectum in the prostitutes. Emery and Glantenay²⁰ at a

¹⁴ Fenger. Elephantiasis of the Scrotum. Chicago Hospital. Ref. *Arch. f. Derm. und Syphilis*, 1892. 24, p. 834.

¹⁵ Shepherd, F. J. Remarkable case of circular constriction of the penis in a boy, producing a condition of elephantiasis. *JOUR OF CUT. AND GEN-URIN. DIS.* April, 1893.

¹⁶ Stravino. Elefantiasi dei genitali esterni consecutiva a stenosi uretrale. *Giorn. Internaz. delle scienze mediche*, 1891, No. 22.

¹⁷ Rotschild, O. Elephantiasis scroti et penis. Inaug. Diss. Bonn 1895. Ref. *Arch. Derm. und Syph.* 39 p. 286.

¹⁸ Calderone. Contributo allo studio dell' Elefantiasi degli Arabi. *Giorn. Ital. delle mal. ven e della pelle*, 1903, p. 541.

¹⁹ Bandler, V. Zur kenntniss der elephantiastischen und ulcerativen Veränderungen des äusseren Genitals und Rectum bei Prostituirten. *Arch. f. Derm. und Syphilis*. XLVIII., p. 337.

²⁰ Ref. *Derm. Zeitschr.* No. 5, p. 540.

meeting of the French Society for Dermatology and Syphilis, showed a case of enormous elephantiasis of the penis and scrotum in a man of forty-five, suffering with old syphilis. Fournier characterized the case as one of tertiary lues.

If we take account of the anatomopathological alterations, we find that congestion, lymph stasis together with an inflammatory process, are the principal factors of this hypertrophy of the tissues. Moreover, we see that the process has in some cases a starting point in the streptococci, in others in the bacillus tuberculosis, in others in the filaria sanguinis, in others in the plasmodium malariae, pyogenic cocci, pneumococci. The presence of the parasites dominate the scene in the factors of the elephantiasis, yet many cases of elephantiasis remained unexplained, like those with hereditary origin described by Savill, and others attributed to trophoneurotic origin as described by Richardiere and Guyot.

Although in the beginning of a new era for the explanation of the syphilitic process, yet we can see that syphilis as the result of the spirochæta pallida, has to be considered as one of the most effective parasitary affections in the production of elephantiasis. The observations of Blaschko²¹ of the presence of the spirochætæ in the syphilitic tissues, in the tunics of the blood vessels, in their divisions, in the surrounding infiltration, in the coagulated lymph in the lymph spaces and in the lymph vessels, all shows that this disease is to-day a parasitic one and capable of producing elephantiasis in the same way as the other mentioned parasites.

The tendency of the syphilitic process to produce lymphatic stasis was already known. The œdema indurativum of Sigmund, and the œdeme sclereux of Fournier following the initial lesion is observed every day in our practice. It is called by Lang,²² *Œdema Induratum*, and it results from a condition of increase of volume in the affected part in consequence of a firm œdema-like infiltration in the skin and subcutaneous tissue. It is nearly always found in the skin of the genitals. It is found in connection with the initial lesion of syphilis, complicates the lesions of constitutional syphilis and reappears with the tertiary manifestations. In some cases the original syphilitic focus is the starting point of this indurated œdema. We have already had occasion to mention this condition of indurated

²¹ Blaschko, A. *Über Spirochaeten befunde im syphilitisch erkrankten Gewebe*, *Berlin Med. Klin.* 1906, No. 13.

²² Lang. *Acquired Syphilis. Twentieth Century Practice*, 1899, vol. xviii., p. 27.

œdema,²³ and we found its cause in a specific inflammatory process of the lymph vessels, which especially in man can be felt as a hard, thick, nodular cord on the dorsum penis. We could show that the process is the result of the occlusion of the lymphatics from coagulation of the lymph, which very likely is the result of the biological functions of the spirochæta.

In the early period of syphilis this œdema slowly but steadily subsides under local and general mercurial treatment. In the late period, when this condition affects the genitals of man and of woman, the œdema is persistent, and its growth is steadily, until they have reached monstrous proportions.

From the above we can say that elephantiasis is the result of the impairment of circulation in the blood vessels, especially in the veins, causing obstruction of the lymphatics. This obstruction can be of mechanical origin, as in the cases of cicatricial strictures, or of removal of the lymphatic glands. In many cases the cause is found in the staphylococcus, streptococcus, in the tubercle bacillus, in the pneumococcus and in filariasis, which is found in the tropical regions, where elephantiasis is endemic. In our country, where elephantiasis is only sporadic, it is found in consequence of all of the named conditions, but we must remember that many cases of elephantiasis of the genitals are of syphilitic origin.

In reference to treatment, when the tissues have taken on so enormous a growth, the general and local applications have not much power of reducing them, and the removal of the elephantiasic tissues is a necessity, so as to free the patient from his burden.

DESCRIPTION OF PLATES.

Pl. XII. Fig. 1. Elephantiasis of the labia majora and anus from extended syphilitic ulcers.

Fig. 2. Elephantiasis of the prepuce from extended syphilitic ulcers of the groin.

Fig. 3. Elephantiasis of the penis and scrotum. Skin of the prepuce enormously developed from syphilis.

Fig. 4. Side view of the elephantiasic penis with extensive syphilitic ulcerations and old scars.

²³ Ravogli. The Histo-pathological Alterations of the Lymph and Blood-Vessels in Syphilis. *XIV Cong. Intern. de Medicine. Madrid, Section of Dermatology.*

DISCUSSION.

Dr. ROBERT W. TAYLOR said that Dr. Ravogli, in his paper, had apparently gone to the other end of the pendulum, and that he would try to go back again to where it started from. The speaker said he had seen a number of cases like those described by Dr. Ravogli. They were usually met with in old syphilitics in whom the condition was complicated by trauma or by a gonorrhœal or staphylococcic infection.

To illustrate his remarks, Dr. Taylor showed a number of photographs of elephantiasis of the penis and scrotum as the result of syphilis. In one there was a chancre of the penis, with marked induration of the organ, which was about the size and appearance of a classical truncated Frankfurter. In the second photograph shown, there was an extensive œdema of the penis, giving it the appearance of an Indian club. The third photograph was an illustration of true induration of the scrotum and penis. This condition, the speaker said, was not uncommon if the disease was not arrested early.

In the primary lesion, or chancre, there is a small, round-celled infiltration of the connective tissue, proliferation of the connective tissue cells, and an abundance of leucocytes. A chancre also showed more or less necrosis or degeneration of its constituent cells. An uncomplicated chancre in its early stages was identical in its general structure with a small, superficial ulcer or patch of granulation, excepting that in the chancre there was distinctly more necrosis and degeneration of its constituent small spheroidal cells.

The blood vessels surrounding the chancre, as well as those a considerable distance from the chancre, even in its earliest stages of development, were uniformly changed. The endothelial cells were swollen or proliferating, the walls of the vessels might be infiltrated, and, finally, the perivascular spaces were crowded with proliferating polyhedral cells.

This early and extensive lesion of the lymph-spaces about the blood vessels, especially the smaller veins, enabled us to understand more definitely how the virus of syphilis spread, how it traveled along these lymph spaces, accompanying the vessels to the root of the penis, to the first set of lymph-nodes which such a set of perivascular lymphatics communicated with, namely, the inguinal ganglia. From these inguinal nodes the cell proliferation, in response to the syphilitic virus, was propagated, it would seem, to the lymph-nodes in general throughout the body in greater or less extent, and in this way the general adenopathy was established.

Finally, in regard to this extension of syphilis through the perivascular spaces from the primary sore to the inguinal glands, it might be pointed out that it occurred very early and proceeded with great rapidity. As soon as the chancre appeared, the net-work of peripheral perivascular lymph-spaces was already involved, and, as indicated by the line of proliferating cells along the venous lymph spaces, the virus was already on

the path to the inguinal lymph-nodes. It could be seen, therefore, that it was impossible to stay the course of syphilis by excising the chancre.

The stage of induration or indurating œdema remained to be considered in describing the structure of a chancre. If a chancre at the well-pronounced stage of induration be examined microscopically, it would be seen that the semi-necrotic mass of small, spheroidal cells composing the bed and main bulk of the ulcer, was circumvallated by a zone of œdema and cellular infiltration of the papillary portion of the derma. Indurating œdema, then, as the name implied was the wall about the chancre wherein the interfibrillary spaces of the pars papillaris were distended with fluid and small round cells.

To recapitulate briefly the series of changes in the chancre: When the causal agent of syphilis entered through the skin or mucous membrane, it excited local leucocytosis and exudative inflammation, with more or less necrosis; there was also proliferation of the connective-tissue cells, a propagation of proliferating cells along the perivascular lymph-spaces, and later a wall of infiltration and œdema of the upper corium layers formed about the periphery of the ulcer corresponding to the stage of indurating œdema. Finally the sore tended to heal and become converted into scar tissue.

Dr. HERMANN G. KLOTZ said that in 1887, before the Section on Dermatology and Syphilography of the Ninth International Medical Congress, he read a paper entitled "On the Occurrence of Ulcers Resulting from Spontaneous Gangrene of the Skin During the Later Stages of Syphilis, and Their Relation to Syphilis," which was published in the *New York Medical Journal*, October 8, 1887. In that paper he reported in detail the case of a woman, fifty-eight years old, who suffered from an enlargement of the right leg below the knee. Beginning directly below the knee, the leg was considerably enlarged; on its upper two-thirds the skin was congested and shining, showing numerous dilated blood vessels, but it was otherwise in good condition. From about the lower third of the leg to the middle of the dorsal aspect of the foot, ulcers of irregular shape, at least one centimeter deep, with sharply cut, indurated edges, occupied nearly the entire circumference of the ankle. The floor of the ulcers showed an uneven surface of a dirty-green color, furnishing a copious watery discharge of very offensive odor. The foot, with the exception of the toes, was enormously enlarged in consequence of swelling of the soft parts, principally of the skin, which was partly smooth and glistening, partly uneven, owing to the formation of numerous aggregated wart-like elevations, and was constantly moistened by a watery secretion. At first sight, the case seemed to be one of simple chronic ulcers with elephantiasis of the leg; closer examination of the patient, however, made it more than probable that syphilis was at the bottom of the disease. Later experience showed the development of the ulcers from gangrene of portions of the skin which had not shown any previous infiltration.

Dr. MARTIN F. ENGMAN said the specific cell of syphilis was certainly a plasma cell. This fact had been demonstrated by Unna and others in their investigations of tuberculosis and syphilis. The speaker said that in his experience it was unique to see a leucocytosis in syphilis, and when it did occur, he regarded it as secondary and of probable staphylococcic or other microbic origin.

Dr. Engman said that if the *spirochæta pallida* was the cause of syphilis, it certainly had the specific property of forming plasma cells. In the South, this œdema, or so-called elephantiasis in syphilis, was comparatively common, among the negroes. In all the microscopic sections of such lesions that had been examined, there was almost invariably a secondary infection with some other organism besides that of syphilis; for example, the streptococcus or staphylococcus.

In the negro race, elephantiasic conditions not uncommonly complicate tuberculosis, eczema, erysipelas and other conditions; it occurs especially after syphilis, and is due, no doubt, to the pronounced tendency shown by members of that race to connective tissue proliferation.

Dr. THOMAS C. GILCHRIST said that an examination of the photograph presented by Dr. Taylor failed to reveal the presence of any polynuclear cells; they were all round cells or plasma cells.

The speaker said he agreed with Dr. Engman in regard to the frequency with which the lesions under discussion were the result of secondary infection with the streptococcus or staphylococcus. In the more chronic inflammations of the skin, especially those due to syphilis, the giant cells were frequently observed.

Dr. S. POLLITZER said that if his recollection served him aright, the investigations of Dr. Van Gieson, to which Dr. Taylor had referred, were made about 1890 or 1891. At that time attention had not been directed to plasma cells and they were practically unknown in the skin.

Dr. RAVOGLI, in closing, said he agreed essentially with the remarks made by Dr. Taylor as to the class of cases of syphilis in which these elephantiasic lesions were most frequently found. They were especially common in negroes and old prostitutes. In regard to the relationship between syphilitic and cancerous lesions, concerning which there had been a great deal of discussion, the speaker called attention to the fact that in syphilitic tissues the natural resistive powers were impaired, and carcinomatous changes were more apt to develop in them than in normal tissue. Sometimes, gangrene developed in these syphilitic infarcts. He recalled two cases that had recently come under his observation in which amputation of the penis became necessary.

In regard to the rôle played by the plasma cells in the development of this condition, Dr. Ravogli said he was not prepared to accept the theory that the plasma cells came from the leucocytes. He was rather inclined to believe that they were the result of proliferation of the connective tissue cells, which by vegetation or proliferation, produced these enlarged cells.

PEMPHIGUS VEGETANS: REPORT OF A CASE, WITH A REVIEW OF THE SUBJECT.

By JAMES MACFARLANE WINFIELD, M. D.

Professor of Skin Diseases, Long Island College Hospital,
Brooklyn—New York City.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, O., May 31, June 1 and 2, 1906.

(Concluded from page 26)

IN preparing this paper, I endeavored to review the literature of all the published cases, and I think I have seen all of the original reports except five or six. All of those obtainable, since the first in 1876, have been carefully studied, and it appears to me that in a number of instances the reporters have been in error when the cases were classed as pemphigus vegetans; for while they had some resemblance to the case, so classically described in Neumann's article published in 1886, they differ clinically in many features.

The recently written text-books upon skin diseases state that sixty or seventy cases of pemphigus have been reported; I have been able to find fifty-eight undoubted cases; this is corroborated by Stanziale (*Ann. d. Dermat. et Syph.*, January, 1904). It is but natural to suppose that some authentic cases escaped my notice.

Kaposi and Neumann (*Wien. klin. Wochenschr.*, 1900, Nr. i.), have stated on several occasions that it is undoubtedly true that pseudo-examples of pemphigus vegetans have been reported by various writers; these were perhaps either cases of vegetating pemphigus vulgaris, or fungating syphilis.

I have added to the abstract of the authentic cases a brief and incomplete list of those that seem to have been confused with the disease under consideration. Errors are easily excused, when we remember that the cases are reported in almost every known language and suffer, accordingly, when they are translated.

The most that we can hope to do in studying the literature of these obscure diseases is to note what we see with what accuracy we may, until we gain comprehension and the power to cure.

REVIEW OF REPORTED CASES.

CASE 1. Was mentioned by Neumann in his report, Archives of

Dermat., 1886, p. 157, and reported by M. Kohn (Kaposi) in the *Archives für Dermat. und Syph.*, Vol. 1, 1869.

Male aged forty-three; previous health had been good; there was no record of first symptoms; later the nails were involved. He had two attacks with apparent absolute recovery from the first attack; the second occurred six years later; the first lasted three years; he died a year and a half after the beginning of the second.

The case had been diagnosed as vegetating syphilis, and figures as such in Kaposi's Atlas of Diseases of the Skin.

CASE 2. Was reported by Auspitz in the same journal, p. 146. Female, aged twenty-eight; grouped bullæ on the abdomen; she was pregnant when attacked, and was thought to have had syphilis; the disease lasted two weeks; termination fatal; no autopsy.

CASE 3. Was also reported by Auspitz in the same journal, p. 248. Female, aged twenty-six; bullæ over the abdomen and lower limbs; the mucous membrane of the vulva was also affected; she was pregnant, had clonic convulsions and heightened reflexes; died after an illness of six weeks. Autopsy revealed purulent peritonitis, and inflammation of the generative organs.

CASE 4. Was reported by Neumann, in the *Wiener Med. Jahrbücher*, 1876, Heft 4, as a case of vegetating syphilis.

Female, aged thirty-one; the first symptoms were blebs in the axillæ; she lived four months; no autopsy. Disease diagnosed as syphilis.

CASE 5. Was reported by Lipp in *Naturforscherversammlung*, in Halle, 1881.

Male; age not given; eruptions appeared on the conjunctiva and in the mouth; duration one year; termination, death.

CASE 6. Was reported by Riegel in the *Wiener Med. Wochenschrift*, 1882, N. 7. ff.

Female, age thirty-four; first symptoms appeared in the mucous membrane of the nose; she lived two months.

CASES 7 and 8. Were reported by Riehl in the *Wiener Med. Jahrbücher*, 1885, Heft 4.

CASE 7. Male, aged twenty-four; the first symptoms were blebs about the face and axillæ; the patient lived nine weeks; autopsy revealed purulent bronchitis.

CASE 8. Male, aged forty-five; first symptoms appeared in the pharynx; he lived nine weeks from the beginning of the attack; autopsy showed left bronchial pneumonia.

CASES 9, 10, 11, 12, 13, 14 and 15. Were reported by Neumann in the *Archiv für Dermat.*, 1886.

CASE 9. Female, age not stated; disease had been diagnosed as syphilis; clinical history and termination unknown.

CASE 10. Male; is not described, except that it had been diagnosed as syphilis, and that he subsequently died.

CASE 11. Male, aged thirty; first symptoms observed in the pharynx; had been treated for syphilis; this case was peculiar in that there were clonic and tonic contractions and exaggerated reflexes.

CASE 12. Female, aged fifty; mouth, pharynx and vulva were affected; lived ten months.

CASE 13. Female, aged fifty-six; disease first began in the pharynx; lasted half a year; was treated for syphilis.

CASE 14. Female, aged forty-one; began on the mouth, tongue and nostrils; much pain on deglutition; lived fourteen months.

CASE 15. Female, aged sixty-one; first symptoms were bullæ on the skin with later involvement of the mouth and pharynx; there was much pain, discomfort, ptosis and delirium; disease lasted four months.

CASE 16. Was reported by Hutchinson, *Medico-Chirur. Trans.*, 1877, p. 421.

Male, age fifty-eight; the symptoms appeared in the mouth; he lived five months; autopsy revealed bronchial pneumonia, pleurisy and an abdominal sarcoma. The disease was called chronic inflammation of the lips and mouth.

CASE 17. Was reported by Radcliff-Crocker, *Medico-Chirur. Trans.*, 1889.

Female, aged forty-three; first symptoms were sore mouth, then the nose, conjunctiva, and vulva became involved; she lived three months.

CASE 18. Was reported by Marianelli, *Gior. Ital. d. Mal. Ven.*, 1889, Heft 2.

Male, aged forty-seven; lips navel, groin, and axillary spaces were involved; died from pulmonary œdema.

CASE 19. Was reported by Kaposi, in the *Wiener Dermat. Gesellsch.*, 1890.

Female, aged thirty-four; the eruption first began in the mouth.

CASE 20. Was reported by Ludwig Waelsch, *Archiv f. Dermat. u. Syph.*, Band 30, Heft 1, 1890.

Male, aged thirty-four; began in the mouth and ran the usual course; died in a few months from exhaustion.

CASE 21. Was reported by Müller, *Monatsch. für Prakt. Dermat.*, 1890, Vol. 21, p. 427.

Male, aged forty-eight; began on the genitals and in the axilla; lived three months.

CASE 22. Was shown by Neumann at the meeting of the *Wiener Dermat. Gesellsch.*, April, 1890.

Female, aged thirty-five; the eruption began on the mouth; termination was unknown.

CASE 23. Was also shown by Neumann at the same meeting.

Female, aged thirty; the eruption was in the mouth and groin;

she died about nine months later under the care of another physician.

CASE 24. Was shown by Kaposi at the same meeting; sex, age and details not given.

CASE 25. Was reported by Lowe, *London Lancet*, May 23, 1891.

Female, aged forty-seven; the eruption first appeared in the mouth, throat and groin; she died from exhaustion about a year after the first onset.

CASE 26. Was reported by Haslund in *Hospitalstidende*, 1891.

Female, aged sixty-seven; illness began after an injury about the nail; the finger and hand became gangrenous; this was followed in a month by blebs in the mouth, lips, and groin which vegetated. She died six months after the original injury, of general æmia; autopsy revealed pulmonary tuberculosis.

CASE 27. Was reported by J. Nevins Hyde, *Journal of Cutaneous and Genito-Urinary Diseases*, 1891, p. 412.

Female, aged thirty-three; disease began in the mouth; there was great difficulty in swallowing; later the groin, thighs, and pubes were involved; still later the neck, scalp, hands and feet. New crops formed from time to time. The article is accompanied by a bacteriological report of cultures made from the serous contents of the blebs.

CASE 28. Was reported by Carl Bernhard in an Inaugural Dissertation in Freiburg, 1892.

Female, aged forty-six; the eruption began in the mouth and on the fingers and genitals; died.

CASE 29. Was reported by Oppler in an Inaugural Dissertation, Breslau, 1892.

Female, aged twenty-five; began in the mouth; she lived two years; she was treated for syphilis.

CASE 30. Oppler also reports.

Female, aged twenty-six; began on the gums; lived fourteen months; she was treated for syphilis.

CASE 31. Was reported by Philippson and Fileti, in the *Gior. Ital. d. Mal. Ven. et d. Pelle*, Oct., 1894.

Female, aged forty-six; disease began about the nails and in the mouth; later the eyes, lips, groin and axillæ were involved; lived a year and a half and died of pulmonary œdema.

CASE 32. Was reported by Mracek, in the *Archiv für Dermat.*, 1895.

Female, aged fifty-six; was under treatment when reported; termination unknown.

CASES 33, 34, 35. Were reported by Herxheimer, in *Archiv für Dermat.*, 1896.

CASE 33. Male, thirty-five years old; eruption began in the mouth and nails; lived one year after the beginning of the attack; autopsy showed thrombosis of the femoral vein.

CASE 34. Male, aged thirty-three; began in the mouth and larynx; lived two years; no autopsy.

CASE 35. Female, thirty-three years old; began in the mouth; lived fifteen months; no autopsy.

CASE 36. Was reported by G. Vagler in the *Military Med. Journal*, Feb., 1896.

Male, aged forty; had been subject to severe headaches for many years; one year before consulting the doctor, he had an eruption of blebs over various parts of the body; these subsided, and a year later the disease began in the mouth; later blebs formed around the anus, over the scrotum, and in the groin; vegetations soon made their appearance, which so closely resembled syphilitic condylomata that a diagnosis of syphilis was made. Upon closer study of the case, the diagnosis was changed to pemphigus vegetans. The reporter concluded that the etiological factor in this case was some disturbance in the nerve cells—which seemed to be proved by finding, upon autopsy, pachymeningitis externa, leptomeningitis, hyperemia of the right hemisphere, with hypertrophy and thickening of the cerebral veins.

CASE 37. Was reported by Herman Ludwig, in the *Deutsch. Med. Wochenschr.*, April 22, 1897.

Male, aged thirty-four; the first symptoms were a watery discharge from the urethra, and a few herpetic vesicles over the prepuce; in a short time large blisters appeared in both axillæ, these rapidly broken down, and their base was covered with vegetating out-growths; the mouth and throat were the last to become involved. He was ill ten months and died from exhaustion. The patient had had diseased nails for five years before the outbreak of the pemphigus: it is difficult to trace any connection between the nail disease and the disease he was supposed to have died with. The reporter is very careful to state that there is no possibility of the case having been syphilis, although the history is suspicious.

CASES 38, 39, 40, 41, 42. Were reported by Kobner in the *Deutsch. Arch. f. klin. Med.*, Band 53, 1897.

CASE 38. Male, aged sixty-three; he had two attacks; from the first he recovered, and remained well for three years; the second attack lasted seven months; the disease began in the mouth, later blebs formed on various parts of the body; he died from exhaustion.

CASE 39. Male, aged thirty-two; two attacks: first lasted four years; after remaining well for four years, he had a second attack; the eruption began on the lips and tongue, finally on the scrotum; he died one year after the beginning of the second attack, from pulmonary œdema. Nine years had elapsed since the first symptoms. He had been treated by Hutchinson.

CASE 40. Male, aged sixty-two; eruption began in the groin, later in the mouth and throat, finally over the body; died in seven months. First diagnosed as syphilis.

CASE 41. Female, age forty-five; began in the throat and lived fifteen months.

CASE 42. Female, age twenty-five; disease first began around the nails; later the mouth, throat and body became involved; lived six months.

CASE 43. Was presented by Danlos and Hudelo at the meeting of the French Society for Dermatology, Nov. 8, 1900.

Male, age not given; disease began in the mouth, spread over the body; marked eosinophilia.

CASE 44. Was reported by Brocq during the discussion of Danlos' case. The patient was a farmer who had drunk the milk of a sick (aphthous) cow. Examinations of blood and blister contents showed nothing of importance.

CASE 45. Was reported by Reille in the Transactions of the Innsbruck Med. Society, May 23, 1901.

Male, age sixty-three; vegetations in the groins and blisters in the mouth. The patient's condition had steadily grown worse while under observation.

CASE 46. Reported by Jamieson and Welsh, *British Journal of Dermatology*, Aug., 1902.

Woman, age thirty-two; the first lesions were blisters on the inside of the cheeks; two months later, bullæ appeared in the groin, axillæ and around the umbilicus; these soon took on the vegetations. The patient lived a year. Degeneration of the spinal cord was found upon autopsy.

CASE 47. Was reported by Hamburger and Rubel, *Amer. Journal of Dermatology*, July, 1903, and *Bulletin Johns Hopkins Hospital*, 1903.

The patient was a male, farmer, aged fifty-two; disease first appeared in the mouth and throat; later blebs and vegetations in the groin and various parts of the body; he lived fourteen months. Cultures from the bleb serum showed the presence of the staphylococcus aureus and a small non-motile bacillus, probably belonging to the pseudo-diphtheriæ group.

CASE 48. Was reported by Henri Halkin, *Ann. Soc. Méd.-Chir. de Liège*, 1903.

Male, age fifty-five; disease first appeared on the arms and in the inguinal region. There were no further particulars obtainable.

CASE 49. Was reported by S. Weidenfeld, *Archiv f. Dermat. u. Syph.*, 1903, Band 47.

Female; eruption first began as herpes upon the lips; this condition lasted for some time and then blebs and vegetations appeared on the genitals, pubes, abdomen, nose and back of the head. The patient died about ten months after the first symptoms, from acute endocarditis.

CASE 50. Was shown by Hoffmann at the meeting of the Berlin Dermat. Soc., Feb. 3, 1903.

Female, age forty-eight; disease began about the genitals and nails. There was a report of an examination of the blood.

CASE 51. Was reported by Stanziale, *Ann. d. Dermat. et Syph.*, June, 1904.

Female, age fifty-eight; disease began in the throat, accompanied with profuse salivation; five months later blebs and vegetations under both mammæ; two weeks later the pubes, umbilicus, and the right axilla were involved. Died within nine months from exhaustion. No autopsy.

CASE 52. Was reported by Pernet, *British Jour. of Dermat.*, Oct. 15, 1904.

Male, street laborer; pure cultures of the bacillus pyocyaneus and the bacillus coli communis.

CASE 53. Was reported by Duckworth, *British Jour. of Dermat.*, July, 1904.

Male, age fifty-one; disease began in the mouth, slowly involving the genitals and legs; some of the vegetations healed, the parts being deeply pigmented.

CASES 54, 55 and 56. Were reported by von Zumbusch; the first two in the *Arch. f. Dermat. u. Syph.*, 1904, Band 72.

CASE 54. Was a man, age forty-six; eruption began in the groin, mouth and nose; vegetated; lived three years; no change in the urine.

CASE 55. Woman, age forty-nine; disease began in the axillæ, popliteal spaces and back; later the feet were involved; recovery; the urine was concentrated and showed traces of albumen.

CASE 56. Was from Riehl's clinic and shown at the January, 1906, meeting of the Vienna Dermatological Society.

Female, aged forty-seven; eruption over the genitals, axillæ and in the mouth; there was considerable exfoliation of the skin.

CASE 57. Was reported by A. Ravogli, *Journal Cutaneous Diseases*, July, 1906.

Female, aged twenty-five; first eruption appeared over the chest, which soon disappeared; several months later blisters formed around the navel and in the groins; she lived seven months after the blisters first appeared; no autopsy.

CASE 58. The notes of Case 58 have been mis-laid.

A brief analysis of the reported cases is here offered:

The ages were given in 45 out of the 57; 24 years being the youngest, 67 the oldest; 6 patients were between 20 and 30 years of age; 16 between 30 and 40; 16 between 40 and 50; 6 between 50 and 60; and 5 between 60 and 70; demonstrating the fact that the dis-

ease occurs more frequently between the ages of 30 and 50; or more correctly, between the 35th and 45th years.

Females seem more subject to the disease than males; there were 31 females and 25 males among the published cases.

The throat, mouth and nose were the parts first affected in 36 cases; the genitals, inguinal region and lower abdomen in 10; nails in 6; axillæ in 4; the face in 3; and the urethra in 1.

The occupations and residence of the patients were not given in all cases; but many of them lived in the city, and were not gardeners or farmers; making the contention, held by some, untenable—that pemphigus vegetans is a disease derived from the soil.

The following is a brief abstract of a few cases that have been reported or tabulated as cases of pemphigus vegetans, but do not seem to have all the requirements to establish them in the list of authentic cases.

Riehl, in the *Wien. Med. Jahrbücher*, 1885, Heft 4, reported a case of a woman aged eighteen; the clinical picture is so imperfect that one is justified in omitting it from the authentic cases.

Hutchinson, in the *Medico Chirur. Trans.*, 1887, reports a case of a male patient, but the data is so imperfect that the diagnosis seems questionable.

Müller, in the *Monatsh. f. Prakt. Dermat.*, 1890, Band 11, reports a case in a woman aged sixty-four, with recovery. There seems some doubt in the diagnosis.

Munro and Swarts, *JOUR. CUTANEOUS AND GENITO-URINARY DISEASES*, 1891, reported a case of malignant pemphigus foliaceus that Neumann tabulated as a case of pemphigus vegetans (*Wiener klin. Wochnschr.*, 1897, Band 10.)

Julius Mayr, *München. Med. Wochnschr.*, 1899, Band 20, reports a case in a male, cured. History, etc., make the diagnosis seem doubtful.

Jacquet reported a case, at the meeting of the French Society of Dermatology, Nov., 1900, that should be placed among the doubtful ones.

Kobner, in the *Deutsches Arch. f. klin. Med.*, 1897, reports a case shown at the meeting of a Dermatological Society. Girl, aged twenty-three; profuse eruption produced by the administration of iodide of potash. No other details given.

F. Samburger, in the *Med. Wochnschr.*, 1902, Band 10, reports a case of a woman who had pemphigoid blisters in the mouth and over the body; case had been diagnosed as pemphigus vulgaris.

Lippman, in discussing Hoffmann's, shown at the Berlin Dermat-

ological Society, 1903, spoke of a case where the eruption had lost its vegetating character; the patient was still living after six years, and was sick with what seemed to be pemphigus vulgaris.

From the study of the literature of this disease, together with my case, it is safe to conclude:

First:—That some of the reported cases are not true examples of pemphigus vegetans.

Second:—That Pemphigus Vegetans is a distinct disease, and not related etiologically to the diseases commonly known as pemphigus.

Third:—That Pemphigus Vegetans is an infectious disease, running a definite course.

Fourth:—That the producing organism is not yet determined.

Fifth:—That this organism gains entrance into the body through the mucous orifices and abrasions of the skin.

Sixth:—That pathological changes in the kidney as evidenced by urinalysis and pathological findings, are not etiologically significant, but secondary.

In conclusion, I wish to thank the different house staffs who have had the care of the patient; Dr. Josephs, the resident pathologist, for his autopsy report and other work which he did on the case; and Dr. Moak for the bacteriological work.

DISCUSSION.

Dr. THOMAS C. GILCHRIST of Baltimore said that Dr. Winfield's paper contained a very interesting and classical description of this disease. The speaker said he was particularly interested in the subject, because they had a patient now under observation at the Johns Hopkins Hospital who was supposed to be suffering from this disease. The symptoms were not so classical as in Dr. Winfield's case, and the lesions bore some resemblance to those of pemphigus foliaceus. There was the usual distribution about the mouth and vagina, and between the thighs, but none of the marked vegetans lesions were present.

The speaker referred to the possibility of lesions similar to those of the skin and mucous membranes appearing in the alimentary canal, although he thought that no bullous lesions had ever been demonstrated there. The opinion he had formed of the disease was that the profound changes through the system were the result of internal lesions corresponding to those on the skin, and which one could not control by direct remedies, but only by increasing the resistive powers of the individual. It was probably a parasitic disease.

Dr. M. B. HARTZELL referred to the marked disproportion between the amount of the eruption and the constitutional symptoms in some of these cases. He had in mind the case of a Polish woman who was suffering from typical pemphigus vegetans, the eruption being comparatively

mild, and all the lesions had almost disappeared when the patient unfortunately grew worse and died. No special reason for her death was apparent. No post mortem was permitted.

Dr. WINFIELD, in closing, said that in cultures made from the blood and also from the serous contents of the lesions, the staphylococcus aureus and the bacillus pyocyaneus were repeatedly obtained. Pure cultures of the latter were finally obtained from the blood. The lesions were repeatedly examined for spirochæta pallida, with negative results.

At times the eruption in this case would practically disappear, and in looking over the histories of the cases on record a similar statement was usually found.

At the post-mortem the intestines showed places where there had been congestion, and possibly bullæ. There were bullæ in the mouth, and in the œsophagus.

EDITORIAL.

SIXTH INTERNATIONAL DERMATOLOGICAL CONGRESS.

THE plans for the coming meeting of the Congress, to be held in New York next September, 9th-14th, are so far matured that they may be presented to the profession in more detail than in the announcement recently issued by the organization committee.

The selection of the subjects to be especially considered claims our first attention. They are of great interest and importance. Theme number one: The Etiological Relationship of Organisms found in the Skin in Exanthemata, will be presented by Prof. W. T. Councilman of Boston, and discussed by Prof. G. N. Calkins of New York. Those who are acquainted with the exhaustive investigations of Drs. Councilman, Brinckerhoff and Tyzzer upon the micro-organisms found by them in the variolous affections, and by Dr. Mallory in scarlatina, and with the opposing views of other observers in this country and in Europe, will recognize the significance of such a discussion. Well known histologists and cutaneous pathologists at home and abroad, have been asked to take part in it.

The second theme: Tropical Diseases of the Skin, is of vast and growing importance. The list of these affections is extensive, and comprises diseases which are under investigation by some of the most distinguished observers. In our ever-widening colonial relations, such a discussion as is promised is a matter of national importance. It will be presented by Dr. Radcliffe-Crocker of London, Prof. Riehl of Vienna, Dr. Dubreuilh of Bordeaux, Dr. Brinckerhoff of Honolulu, and Dr. Wright of Boston, and will be discussed by Dr. Stiles, U. S.

Marine Hospital Service, and Dr. Sommer of Buenos Ayres. Other distinguished authorities from distant countries have also been asked to present their views.

The third theme: A. The Possibility of Immunization against Syphilis. B. The Present Status of our Knowledge of the Parasitology of Syphilis is one of the most interesting topics of the day. The momentous results of recent investigations in this field have revolutionized our theories concerning the pathology of this all-important disease, and have afforded also most valuable information from a practical point of view. Prof. Neisser of Breslau, who presents the subject, it may be known, has recently passed many months in the home countries of the higher apes in the study of inoculation and immunization. This part of the subject will be presented also by Prof. Finger of Vienna and Dr. Leredde of Paris, and discussed by Prof. de Amicis of Naples and other investigators.

The parasitology of the disease is to be presented by one of the discoverers of the spirochæte, Prof. Hoffmann of Berlin, and discussed by Dr. Buschke of Berlin, Dr. Herxheimer of Frankfort, and others.

Voluntary papers upon a wide range of subjects by distinguished dermatologists of many countries have already been accepted by the committee, and this part of the program promises to be of great excellence.

But there is another feature of the Congress, which, it is intended, shall be of unprecedented interest, viz.: the clinical sessions. Three mornings are to be especially devoted to the exhibition of patients and to formal discussions of the affections presented. It is the intention of the committee to arrange these cases in groups, and to make them largely representative of new diseases and those peculiar to America. For example, it should be both attractive and instructive to our foreign colleagues to be able to examine the type cases of blastomycosis and its allied forms in considerable numbers, and interesting to all to listen to the views of the masters of our specialty upon such novel topics.

The plans made for the social entertainment of our foreign guests and the accompanying ladies are of varied and attractive character, such as befit the reception of so distinguished a body of physicians from distant lands. It is hoped that all American members will assist in every way to make the Congress a great success. Although it is held apparently by our European colleagues that it is much farther from their continent to ours, than we find the voyage to theirs to be, it is expected that on this occasion they will venture in great numbers to visit our western world.

CORRESPONDENCE.

The remarks made on my article "Syphilis in Relation to Crime," by Dr. Albert S. Ashmead, (*THE JOURNAL OF CUTANEOUS DISEASES*, December, 1906, p. 571), are of so great importance that I cannot let them go without reply. I feel greatly indebted to my friend for bringing out so many points which needed elucidation. I do not care to enter into the historical question, for which I have no other argument than that at those historical times, when life and property were insecure, when crimes of every kind were flourishing, syphilis was ravaging the populations as an epidemic. My point was to demonstrate that at those times the mind, or better, the nervous system of the rulers and of their governed, were under a great strain on account of the disturbed political conditions. Syphilis has a tendency to affect the organs which are under an increased stimulus, or better, under a continued strain. People at that time were under great strain on account of their political and religious reforms, and for this reason, excited by the toxic products of syphilis, with weak wills, incapable of controlling the impulse, they were led to those carnivals of blood which have horrified the civilized world.

Crime which is found also between animals has begun with the first man. It would be ridiculous to state that there was time without crime; crime has existed always as a disease of society. But as every disease has its causes, it is our duty to investigate these causative factors. Causes are some predisposing, some occasional and some determining. The condition of the nervous system has a great deal to do with the commission of a crime. Suppose that a man in his normal condition is insulted, he will resent only the injustice of the insult. Suppose that the same man is under the influence of alcohol, and has a weapon at hand, he may kill the insulter. We can easily see in this case that the predisposing cause is the liquor, the handy weapon is the occasional cause, and the insult is the determining cause. It is not liquor alone which can influence the mind so badly, but nearly any toxic substance, and not infrequently the toxic elements resulting from a syphilitic infection. Indeed, Dr. Valentine has recently called attention to the manifest and astounding lack of moral sense, in venereal patients, which he attributes to the toxic products of the infectious germs.

I do not deny free will in man; in his normal condition the will is free. To deny free will in man would be the destruction of the knowledge of right and wrong, of justice and injustice, to subvert the principles of morality. But nobody will deny that under the influence of liquor, or of a poison or of a disease, the will is no longer free. Epilepsy

is often the cause of the most revolting crimes, and an epileptic cannot be considered a criminal and be punished. The crime in the epileptic is only a substitute for the epileptic fit, and after the crime has been perpetrated, the epileptic does not remember even the circumstances. The free will in this case is entirely subordinate to the pathological conditions of the brain. Nobody can deny that in a great many cases epilepsy is the result of syphilis, in the form of toxic condition in the early period, or in the form of gumma, or of productive angioitis in late period. I wish to be understood that I do not maintain epilepsy to be the result of syphilis in all cases, but I have reason to believe that three-fourths of all cases of epilepsy recognize as their cause syphilis, as acquired, or as a hereditary taint. When we admit epilepsy to be a cause of crime, and we find that epilepsy is the result of syphilis, as legitimate consequence syphilis must be recognized as causative of crime.

It would be too long to refer to the various forms of syphilitic insanity, which form a class by themselves. We will only point out certain conditions of despondency and of peculiar excitement, which is the result of the toxic products from the syphilitic germs (*spirochætæ*). This condition of despondency did not escape the attention of the historians, and Nicholas Leonices, and Guicciardini, referring to the ravages of the new disease (syphilis), reported that many were driven to desperation by their sufferings, and they often committed suicide by drowning in the cisterns. Not long ago Fournier called the attention of society to syphilis as a cause of suicide.

Every physician has seen the moral sufferings of patients who have had syphilis, and are afraid of every symptom, that condition which we call syphilophobia.

In the autopsies of bodies of persons who in life had been affected with moral insanity, Lombroso and others have found in the brain the remarkable lesions of the blood vessels, which are to be attributed to the deleterious action of the syphilitic process on their tunics.

I referred in my article to several convicted murderers and highway robbers in Hamilton County jail who all had recent or old manifestations of syphilis in progress, or showed scars or alterations of syphilitic nature. I have referred also to the frequency of syphilis in the colored race, which is found somewhat more inclined to violent crimes.

I have never intended to maintain that syphilis is a determining cause of crime, but from the consideration of certain crimes, and from the study of the conditions of the malefactors, we can proclaim without fear, that syphilis is a predisposing cause to crime.

A. RAVOGLI.

5 GARFIELD PLACE, CINCINNATI, O.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

345th Regular Meeting, November 27, 1906.

Dr. MEWBORN, President, in the Chair.

Prurigo Ferox.

Presented by Dr. J. C. JOHNSTON.

Dr. Johnston said that the patient had been under treatment at the clinic of Cornell Medical College for about eighteen months, but had been suffering from the disease for three years. When he first entered the clinic one of the assistants made a diagnosis of chronic eczema.

The disease extended entirely over the body, from the scalp to the heels, head, neck, arms, trunk, legs—everywhere excepting the palms and soles. The skin was so thick it could not be picked up between the fingers, and generally infiltrated so that individual lesions could not be distinguished. Dr. Johnston said that he made a tentative diagnosis of mycosis fungoides, but later it was proved to be a papular dermatitis. The patient was put upon eliminative treatment—diuretics, cathartics, hot-air baths, and pilocarpin internally, his nitrogen intake restricted, and the skin began to clear up, and is now immensely improved. He has had a recent outbreak of the trouble, and he had been treated with Beebe's nucleo-proteids of sheepthyroid, in the hope of influencing his metabolism. It was probably influenced, but the result was a new outbreak. Dr. Johnston said that he had finally decided when discrete lesions became visible that it was a case of prurigo ferox.

As to the evolution of the individual patch, the skin first becomes infiltrated with a doughy œdema on which the vesico-papules of the disease appear. The papules are not grouped, and there is no multiformity in outbreaks. Diffuse infiltrated plaques are soon found. The amount of pilocarpin given was gr. 1/30, q. i. d., although the dosage began with 1/120, 4 times a day, just sufficient to keep the skin moist.

Dr. BULKLEY said that he would not be willing to connect the term prurigo with the eruption at all. There were a great many scars, and in the pigmentation left after many of the eruptions, as well as from the character of the lesions, it seemed to him a case of dermatitis herpetiformis, the intensity of the condition being increased by the scratching. You can get up any amount of dermatitis in that way. Now that the condition has cleared up under the proper eliminative treatment, we get the real nature of the disease showing itself.

Dr. LUSTGARTEN objected to calling the case prurigo in the French meaning of the word. It is apt to lead to misunderstanding. He was inclined to look

upon it as a toxæmia, and would like to hear from Dr. Johnston as to the report of the blood findings, the indican, acetone, etc. He had seen some of these cases and felt uncertain how to call them. The condition bears relation to certain forms of urticaria. He saw no strong evidence of dermatitis herpetiformis in this case. It was more important, however, to form a true pathological idea of the condition. Dr. Johnston had certainly been very successful in the treatment of the case, but it would have been interesting if he had been able to determine the effect of pilocarpine alone, as Dr. Lustgarten has had some remarkable results in chronic urticaria with this drug.

Dr. JOHNSTON said that the man could not wait for experiment. He was in a frightful condition and was suffering very much, and said that he had not had a half hour of continuous sleep in two years. Later he thought it might be called a diasthetic prurigo, after Besnier. He did not think it a dermatitis herpetiformis for the lesions were not grouped and not multiform. The salient characteristic is a vesico-papule, acuminate and uniform. More than that, it does not show the selective distribution of dermatitis herpetiformis. The point, however, is the etiology, not the name.

As to the question of eosinophilia: when the man first came for treatment he had 30 per cent. of eosinophiles, so much so that the pathologist said he thought he must be suffering from some form of animal parasitism—he had never seen such an eosinophile percentage. That has now gone down to $7\frac{1}{2}$ —reduced three-fourths. He has had indican all through his course until recently, since it has been reduced to a percentage non-pathogenic. His urine has been examined recently every week for the nitrogen partition, urea, uric acid, ammonia, keratinin, and undertermined percentages, and they had never succeeded in demonstrating any marked change, because his toxic state is established. He is going on now on a level which shows no fluctuation, even when he has a new outbreak. As soon as he began to take the neucleo-proteids of the thyroid gland, the urine was examined every week without marked evidence of fluctuation, but the eruption got worse. It was reasonable to suppose that the proteids had influenced the metabolic process, but it did not benefit the patient, so it was discontinued. He has had every clinical indication that could be obtained now of autointoxication, and seemed to be doing as well as could be expected. In addition to his other eliminative treatment he takes three quarts of water every day.

Circinate Papular Syphilide.

Presented by Dr. WHITEHOUSE.

Patient male, aged thirty-five. The eruption is confined to head, face, and upper extremities, especially the forearms. There is some alopecia. There is a history of sores on the penis 8 years ago, and gonorrhœa a year ago; the former were thought to be soft chancres. The present eruption has existed for two months. The case is chiefly of interest as an exquisite example of the ringed-form of secondary syphilitic eruption, displaying a degree of symmetry in distribution rarely seen; the lesions upon one side are almost exactly duplicated upon the other. The palms are free.

Idiopathic Multiple Sarcoma of Haemorrhagic Form. Presented by Dr.

GEORGE H. FOX.

This case had previously been shown before the society, and also before the American Dermatological Association. At the time he was presented before the Association he had a swollen leg and thigh, with a

weeping eczema which concealed the condition on that side, and some members of the Association doubted the diagnosis. At Dr. Klotz's suggestion the patient was put upon a mixed treatment, in the hope that it might lessen any pressure in the groin, but it had little effect. The man has recently been in the country, and the eczema has cleared up very much. The tumors in the groins are softer than they were, but the dark nodules have increased in number and size.

Dr. LUSTGARTEN said there was no doubt about the diagnosis. The interesting feature is the elephantiasis which is secondary. There might be some pressure on the veins and lymphatics due to some deeper seated tumors. X-ray treatment might be efficacious to a certain degree, in relieving the patient of pain, and bringing about involution in the exposed area. It has been so in one bad case.

Dr. FOX said that the X-ray had been tried for a short time, but the eczema seemed to be aggravated and it was discontinued, but the improvement in the leg,—which resisted various forms of treatment for a long time—has been very marked since he went to the country.

Dr. BULKLEY said that he had had two very remarkable cases at the New York Skin and Cancer Hospital which were treated with the X-ray, one now under observation and another a year ago, in which the multiple tumors simply flattened down and faded out under the X-ray. The men could not walk on account of the puffy and painful condition of their feet, and the tumors flattened out so that they could walk to the clinic comfortably. Their hands were swollen, and the tumors appeared in numerous places on the body, the thighs, etc. He thought that the effect of the X-ray in this form of multiple sarcoma was very remarkable, and he should certainly want to try it before giving up a case.

Lichen Planus Verrucosus, with Ulceration. Presented by Dr. JOHNSTON.

Dr. Johnston said that a case of lichen verrucosus, confined entirely to the leg, was of no very great importance, but a curious feature of this example was that in the midst of the big patch on the right leg were two punched-out ulcers, which were characteristically lentic in appearance. The patient was put upon a series of 24 inunctions, and then had a month of specific treatment by mouth which had no effect. The failure of mercurial treatment is rather surprising in any case. Involution is beginning under X-ray exposures.

Dr. FOX said that some years ago he had seen a case in which ulceration took place in a case of hypertrophic lichen planus over the shin, without any apparent cause. He had never seen a similar case before or since until to-night.

Dr. JOHNSTON said that the ulcer shown to-night, which was filled up with calomel, was a new one which occurred while he was under the X-ray treatment. The patient says that he has received no injury, but as he works in a grocery store he may kick his shins more or less. The patch in which the necrosis occurred has always been more ædematous than usual in lichen.

Superficial Multiple Epithelioma. Presented by Dr. WHITEHOUSE.

Female, aged forty-five. The eruption began four years ago in a pigmented spot—a mole or "liver spot," according to the patient—in the

center of the forehead. This became irritated and rough, forming a scab, which was picked off and a strong solution of carbolic applied, but it did not heal. It continually formed a scab which was always picked off, the original area extending all the time. At present there is an ulcerating scabbed patch covering one-half to one inch in the center of the forehead, the edge of the ulcer being hard and raised, and rather characteristic. Shortly after the appearance of this lesion two other superficial crusted patches appeared, one on the left temple, the other on the cheek in front of the upper part of the left ear. These have been curetted, and at present appear as superficial, scaly, red patches, with little evidence of epithelioma. For the past year or so a fourth small circular patch one-quarter of an inch in diameter has been present on the right side of the neck just beneath the lower border of the inferior maxilla toward the front. With the magnifying glass the patch has a depressed center, and a raised, pearly, ring-shaped border, characteristic of the superficial type of the disease.

Dr. SHERWELL remembered the case as having appeared in his clinic some three weeks since. He had operated then on the main growths, which were slight—the fact was he had just operated on two others the same afternoon for epitheliomas of face—quite severe ones. She was so nervous and hysterical that he had not the time or patience to be as thorough with her as with the others; so she was directed to call again for further treatment. The case was undoubtedly one of multiple epithelioma.

Case for Diagnosis.

Presented by Dr. JACKSON.

The patient, a young woman, had an eruption on the back of her right hand and wrist, which had existed four years. It was of a faintly dull-red color, with sharply defined outlines. The color could be almost entirely relieved by pressure. There was little, if any, infiltration, and no cicatrization. There were no subjective sensations. The appearance could be best compared to a superficial vascular nævus.

Dr. Fox said that when he first saw the case he thought it might be an erythematous lupus, but he would hesitate to make a diagnosis of erythematous lupus upon the hands when it does not exist upon the face. In the same way he would hesitate to make a diagnosis of psoriasis of the palms that did not exist elsewhere on the body. He hoped that the Society would have another opportunity of seeing the case later on.

Dr. LUSTGARTEN thought it impossible to make a diagnosis at the present time, but said that there were some spots on palmar surface of the hands which suggested to him eczematiform syphilis as a possibility.

Dr. JACKSON said that while it might be a very superficial syphilide there seemed to be very little evidence of it, as there was scarcely any infiltration. He would give her antisyphilitic treatment and note the result. It seemed to him more likely that it was due to some vascular change or a very superficial form of lupus erythematosus. He had seen the same eruption on the neck of a young woman that came on after sun burn. After lasting many months superficial cicatrization took place, and there was no doubt about the case being one of lupus erythematosus.

Mutilation Gangrenous Dermatitis of the Hand. Presented by Dr. J. C. JOHNSTON.

The patient, a young woman of twenty-two, had had her disease for two years. It involves the whole back of the hand, the little and ring fingers, and the extensor surface of the forearm to the elbow. The forearm has become involved in the last six months. The lesion begins in the form of a discrete bleb, which after becoming purulent, dries into a black crust. On separation, a superficial ulceration is left which heals very slowly. The muscles are atrophied from disuse, and the skin intervening between the ulcers is smooth, glassy, and densely hard. The fingers show the same condensation. The patient has various paresthesias and other signs of hysteria.

Dr. LUSTGARTEN said that we have dozens of such cases, but he had not seen such a striking case as this for years. A peculiar thing about these cases is that we find them only in very neurotic hysterical persons. He supposed that all precautions had been taken to exclude malingering. It seemed rather peculiar that only one arm was affected. As the right arm is disabled she could not use it for hurting her left arm. Some of the new lesions looked very much like caustic potash. He remembered, however, a case of ulceration on the back of the hand in a girl with complete anaesthesia, where the same question was raised. Every precaution was taken in order to exclude malingering and deception. The girl relapsed after she was almost healed, and was finally cured by suggestion. She remained a great hysteric, but the condition was cured by hypnotic suggestion. He had showed this case a number of years ago.

Dr. SHERWELL referred to a case which Dr. Winfield had seen as well, which while it had impressed a number of physicians as an idiopathic affection, proved after all to be a case of malingering, as had been diagnosed by them. The case presented now looked a little more like a veritable idiopathic ulceration, the patient looked both cachectic and neurotic. Sealed bandages and the strictest observation would tell the tale.

Dr. BULKLEY inquired whether any present had ever seen a case of acute gangrenous dermatitis that was not malingering. He had seen many cases of self-injury of the person, and had yet to see a case of gangrenous dermatitis that did not come under that head. He thought the girl had taken a stick of caustic potash and burnt her hand. She does not want to work and enjoys the sympathy of societies, and gets crazy on the subject. He quite agreed with Dr. Lustgarten, and did not believe in the existence of this condition except where it is self-inflicted.

Dr. JOHNSTON said there was evidence on both sides of the question of malingering. The right, the working hand involved, the surface is easily reached by the other, the lesions are sharply circumscribed and do not follow any nerve distribution. On the other hand the surface has been under a sealed dressing for six weeks at a time and failed to heal; there are stigmata of hysteria, and the woman is impressionable; the condensation of the deeper tissues and the "glossy skin" are not hysterical manifestations. The speaker's opinion inclined toward the theory of self-infliction, perhaps under influences of a fixed idea.

Dr. LUSTGARTEN said that in the case he referred to all possible precautions were taken; starched bandages were used and marked so that they could not very well be duplicated. He felt very sceptical of such cases. Referring to Dr. Bulkley's question; this girl was subjected to all sorts of tests to establish a diagnosis. "Complete and absolute anaesthesia was found, extending to all the mucous membranes. As soon as the suggestion treatment was adopted the

lesions began to heal under the starched bandage. Then Dr. Lillienthal, who was treating her, went away on his wedding trip for four weeks, and the treatment was discontinued, the condition relapsed under the starched bandage. When Dr. Lillienthal returned he resumed the treatment, and the patient got well. By the Nancy school a number of experiments were made with all possible precautions about producing dermatitis, etc., by suggestion, where, for instance, a little piece of paper was used with a small piece cut out and that put on the skin and the patient was suggested that she might be burned, and then the whole thing bandaged up with all precautions, and later showed all the signs of a burn. The possibility of such occurrences could not be denied on a purely hysterical basis. We may be very sceptical, but unless we make up our minds not to believe anything but what we see ourselves, we must acknowledge that such things do happen sometimes, mysterious as they seem.

Case for Diagnosis.

Presented by Dr. MEWBORN.

The patient, a man twenty-three years of age, is a bricklayer by trade, and is in the habit of lifting heavy loads, reaching his arms upward. He denies any specific history. For two weeks he has had these hard, symmetrical nodules on either arm. Has never had any eruption or infected wounds on the hands. The nodules are not painful and the man has no subjective sensations. The condition remains about the same on both sides.

Dr. SHERWELL said that the patient on being questioned complains of his attitude during work in a most peculiar manner for a bricklayer. It seems he has had to work with arms extended above his head during his job. Muscular affection in that way might have some effect upon the joints, but he (Dr. Sherwell) did not see how work which led him to extend his arms most of the time could produce the present condition of the glands.

Dr. Fox said that if the man had but one tumor, especially the one that was softening, and gave any sort of history of syphilis, there would be no doubt of its being specific. We often see one or two gummata in different parts of the body. The peculiarity of this case is that these two are symmetrical. He was inclined to believe it syphilitic in origin; the absence of specific history, of course, amounts to nothing.

Dr. LUSTGARTEN said that he considered it a subacute adenitis in a state of softening or suppuration.

Dr. WHITEHOUSE said that he would not like to venture a diagnosis at present, but the fact that it has only existed for about two weeks rather favored the idea that it was some acute infectious process.

Dr. MORROW suggested that if it were an infectious condition it would probably be more painful.

Dr. WHITEHOUSE replied that it was certainly inflammatory and somewhat tender, so perhaps one would now consider it a subacute condition.

Dr. MEWBORN said that the enlargement was lower on the left side than on the right, and that you could isolate the gland on the left side but not on the right. The gland does not seem much enlarged, and if from an infection of the hands it would be localized almost entirely in the epitrochlear glands.

Crocker mentions the humerus above the condyles as the site for the occasional development of erythema nodosum. The perfect symmetry would be very rare, indeed, for a late specific manifestation such as gummata.

Case of Sclerodactylitis.

Presented by Dr. FORDYCE.

The patient was a Russian woman, fifty-three years old, who had been under observation since May, 1906. She stated that the affection began four and a half years ago, by a tightening and glazed appearance of the skin covering the fingers, hand, and lower third of the forearm. A similar condition was noticed about the face. Six months later her fingers became contracted and about the same time she noticed ulcerations about the nails, which one after the other became affected, giving rise to considerable soreness. A similar condition, though not so marked, appeared about the terminal phalanges of the toes. The patient also had on her occiput a red, scaling lesion about the size of a silver dollar, which bore some resemblance to lupus erythematosus. The chief point of interest in the case was the dystrophic changes in the nails and skin covering the ends of the fingers. An X-ray picture taken by Dr. McKee showed the atrophy and deformity of the terminal phalanges.

Dr. BULKLEY said that he had been watching a similar case for a number of years. Both hands and both feet were affected, and there was also a very considerable amount of scleroderma on the face, and latterly the foot trouble had been attended with ulcerations of each ankle; but an interesting point was that the patient had always derived much benefit from nitro-glycerine. This was given in doses of 1-100 grain, 8 times a day,—every two hours. When the dosage was stopped, the patient would ask for it again, and always derived much benefit from it. The fingers would limber up and the face lose much of its sclerodermatitis. The woman is 35 years old and single. At times the ulcerations of the feet would give much trouble and would refuse to heal. The obstruction to the circulation is very great, and the woman's legs are very small. There was no doubt as to the benefit she had obtained from nitro-glycerine, taken in sufficient doses for her to feel it in the head.

Dr. PIFFARD asked if Dr. Taylor remembered a case of scleroderma seen with him some thirty years ago. The woman was a German, 30 years of age, with scleroderma of the left leg near the ankle.

Dr. TAYLOR replied yes, that the woman's name was Johanna Ahabt.

Dr. PIFFARD said that he had treated her with the galvanic current. In these sclerodermatous conditions he knew of nothing to equal the use of the galvanic current, and he had seen a number of cases subside under it. Of course after atrophy has commenced very little can be done, but it usually reduces the infiltration that precedes the atrophy.

Squamous-celled Epithelioma of the Nose; Treated by X-ray. Presented by Dr. FORDYCE.

The patient, a woman about seventy years of age, had already been before the Society on one or two occasions. The epitheliomatous ulcer of the nose, after several recurrences following curettage and chloride of zinc application, finally yielded to prolonged and repeated exposure to X-rays. The original site of the trouble was now healed, but she showed on the corresponding side an enlargement of the lymph node at the angle of the jaw, which indicated a metastasis from the original growth. It was not improbable that the cancer cells were present in the lymphatic vessels or node before or during the X-ray treatment, and illustrated the

powerlessness of the rays to affect the cells in these locations. The patient had been advised to submit to a radical operation for the removal of the affected lymph node.

Dr. WHITEHOUSE said that in the case of the epithelioma of the nose treated with the X-ray Dr. Fordyce had certainly secured a very beautiful result.

Dr. SHERWELL said that he thought that the X-ray treatment did not influence the condition so well when it recurred and a second time the X-ray treatment was again resorted to. The X-ray exposure then often aggravates the conditions. He had seen a number of instances of this, and wondered whether the present case would not follow the same course.

Dr. PIFFARD said that the point which surprised him was the youthful age of the woman. The results secured were very pretty so far. He supposed that if it recurred again the X-ray could again be applied. In his experience relapses occurred oftener after the X-ray treatment than otherwise. The permanent results were not so good as from some other forms of treatment, but there were instances where it was the only desirable method to apply.

Dr. FORDYCE, referring to the question of recurrence after X-ray treatment, said it was difficult to determine in just what percentage of cases this took place. He now had under observation a case of rodent ulcer of the side of the nose which had recurred twice after X-ray treatment. After a third series of Roentgen ray exposures the affection was again apparently cured. He had cases of superficial epithelioma of the face and other regions in which the disease showed no relapse two years after the cessation of treatment. In one case an epithelioma may disappear after six exposures while in another it may require forty.

Chronic Ulcer of the Leg with Dermatitis Vegetans. Presented by Dr. FORDYCE.

The patient stated that he had had an ulcer of the leg for sixteen years. It was situated just above the internal malleolus and was accompanied with varicose veins. For the last six months the skin covering the lower half of the leg was the seat of a warty outgrowth, which the patient thinks followed the application of an irritant ointment. He was presented on account of the interest which is just now felt in the subject of vegetating dermatitis.

Rodent Ulcer of the Side of the Nose which began at the age of 19. Presented by Dr. FORDYCE.

The patient, now twenty-nine years old, stated that the lesion began ten years ago as a slight erosion, and has slowly spread in an eccentric manner. It had been subjected to various treatments, but constantly recurred. When seen at the clinic it was somewhat larger than a ten-cent piece, with a slightly atrophic and eroded center, and rather well-defined waxy margin. A biopsy revealed the nature of the lesion. It healed under X-ray treatment, but has now reappeared at the margin in one or two places. The case was presented because of the early age at which it began.

Dr. BULKLEY said that he had treated dozens of such cases with a rubber bandage, and that he had great faith in the efficacy of this treatment when

rightly used. There is, however, quite a knack of getting just the right amount of pressure with the rubber bandage, applying it so that the patient feels he has all the pressure he can bear, putting it on each time yourself or watching it done, and regulating it carefully. After thirty years of experience with it he was more enthusiastic over it than ever, if the bandage be rightly applied. Of course the ulcer should be treated locally in the meantime with the proper applications and dressings.

Presentation of Gross Specimens from a Case of Gangosa. Presented by
Dr. FORDYCE.

Dr. Mink and Dr. McLean, assistant surgeons of the U. S. Army at the Guam Naval Station, had recently made a report of Gangosa as it exists in that island, and had in this report identified the case from Panama, reported by Arnold and Fordyce as one of true gangosa. The specimens now presented had been kindly sent by them, and included a section of the face, showing destruction of the wing of the nose, intra-nasal ulceration, absence of the septum and uvula, and ulceration of the soft palate and base of the tongue. A microscopic examination of tissue removed from the margin of the labial ulceration, showed a picture identical with that removed from the Panama case.

Dr. JOHNSTON said that he had seen a case of tropical ulceration from Panama in which there was an ulceration at the base of the frenum running along the sulcus to the top of the penis, which would admit the whole thumb. The growth is very indolent, indurated, and exquisitely painful. It was not a phagædenic chancroid and failed to react to mercurials. Neither spirochetæ nor bacilli of Ducrey could be demonstrated in smears, but the histology was that of granuloma. The case is Dr. G. K. Swinburne's.

High-frequency Intensifying Electrode.

Dr. Piffard exhibited and demonstrated a new high-frequency device, which he called an intensifying electrode. When connected to one pole of his transformers, actuated by either a static machine or coil, it gave out a strong effluve, similar to but more energetic than that usually obtained from the Oudin resonator. He had found it extremely useful in the treatment of some forms of eczema. The effect was intensified if the patient were directly connected to the other pole of the transformer.



It was virtually a miniature resonator, of the form above shown, and weighed less than half a pound. It could, therefore, be readily held in the hand, and the effluve directed to any desired part of the body. Its action was accompanied with the development of considerable ozone.

H. H. WHITEHOUSE, M. D.,
Secretary.

MANHATTAN DERMATOLOGICAL SOCIETY.

Fifty-first Regular Meeting, May 4th, 1906.

Dr. ROBERT ABRAHAMS, Chairman.

Syphilitic Caries of the Nasal Bones; Recovery after removal without Deformity.

Presented by Dr. R. ABRAHAMS.

Adolf S., forty-one, history of syphilitic infection 12 years ago, for which he had 3 or 4 month treatment. Since then has had some throat trouble and a recurrent eruption, both yielding readily to mercurials. July, 1905, swelling at site of right lachrymal duct, with foul smelling nasal discharge. When first seen, on the 18th of that month, there was a right dacryocystitis and extensive ulceration apparently involving all the soft parts in the right nasal cavity. No exposed bone could be detected. Under large mercury salicylate injections, and daily 75 to 100 grain doses of iodide, mercury vasogen, etc., locally, there was satisfactory improvement; the dacryocystitis subsided and the nasal swelling diminished to one-third of its size. The anosmia and foul discharge persisted, however, and by the beginning of this year there was exposed bone, apparently the turbinated. Dr. J. M. Bleyer then removed the turbinated, the ethmoid, and a large part of the vomer; the specimens show the large amount of cellular bone tissue removed. Cure is now complete; there is neither swelling nor discharge. It is interesting to note the entire absence of deformity; though the patient has lost a large part of his vomer, together with the turbinates, and most of the ethmoid and sphenoid cells, there is no deformity at all. The nasal arch has been preserved by the remains of the vomer and by the fact that the nasal bones were not involved.

Xanthoma Diabeticorum.

Presented by Dr. R. ABRAHAMS.

S. F., fifty; eruption began eight years ago with the appearance of a small nodule on the nape of the neck; others came subsequently until the mass attained its present size; for the last three years it has been stationary. Sugar has been repeatedly found in the patient's urine. At the present time the mass measures 1 by 1 inch, is nodular, insensitive, and distinctly yellow in color; it presents the physical characteristics of a tuberous xanthoma nodule. The internal organs are normal, save for the following interesting condition: a year ago he first noticed difficulty in swallowing, which gradually increased until six weeks ago; when he first came under observation, he could swallow only liquids. Examination showed the presence of a stricture of the œsophagus. The result of a rigorous antidiabetic treatment has been that there is now no sugar;

thirst and micturition are normal; the skin tumor is diminishing in size; and simultaneously with this improvement the œsophageal stenosis is diminishing, so that he can now swallow solid food. Dr. Abrahams suspects that the stricture is occasioned by a growth similar to that on the neck. Xanthoma has been found in the internal organs, and the improvement in the œsophagus simultaneously with the other symptoms would seem to speak for it.

Attention was called by several members to the rarity of an isolated lesion in xanthoma, and especially in the diabetic variety. Dr. Oberndorfer and others were inclined to regard the external growth as acne keloid, and unconnected with the œsophageal lesion.

Exfoliatio Areata Linguae.

Presented by Dr. M. B. PAROUNAGIAN.

Male, twenty-five; syphilis five years ago; lingual mucous patches a year later. During the last two years has had peculiar circinate patches on the dorsum linguae, which are quite fugitive, coming and going. They are quite uninfluenced by antisypilitic treatment. Their margins were distinctly hypertrophic, and their surfaces did not resemble that of leucoplakia patches at all. He regarded the lesion as an example of what has been described as marginate exfoliation of the tongue, or wandering rash. In the subsequent discussion of the case, Drs. Cocks, Oberndorfer, and Gottheil regard them as syphilitic leucoplakias of rather unusually marginate form.

Neuro-fibroma.

Presented by Dr. L. OULMAN.

F. K., female, thirty-six. Lymphangitis of left leg at seventeen; later had yellow fever in Brazil, after which her skin became quite dark, and has so remained. Lues denied. Immediately after her lymphangitis two or three small soft tumors, which she regarded as warts, developed on her shoulders; then some appeared on her right hand and on both arms. From time to time additional tumors appeared on various parts of the skin; until now the entire surface of the body is studded with them. They are mostly subcutaneous and cutaneous pea-sized and smaller nodules, with the epidermis over them unaltered in texture and color. The case was an extensive but as yet slightly developed example of general neuro-fibromatosis, and in time would probably develop into the larger and often pedunculated tumors characteristic of the affection.

Dr. Gottheil had a precisely similar case some years ago, in which microscopic examination revealed the fact that the tumors were epitheliomatous, with distinct development of cysts in the hypertrophic epithelium. The microscope only could decide the matter, but this was of little practical importance, since treatment was inefficacious in either case. He would suggest multiple benign cystic epithelioma. Dr. Oberndorfer was inclined to regard the lesions as simple multiple fibromata. Dr. Weiss called attention to the very great difference between the histological process in simple fibromatosis and this type of disease,

which he regarded as the true example of Recklinghausen's neuro-fibroma. The microscope was required, however, to support the diagnosis.

Erythema Multiform Tuberculatum. Presented by Dr. W. S. GOTTHEIL.

This patient, a man of seventy, when first seen some three weeks before, showed his whole body more or less studded with moderately hard, bluish-purple infiltrations varying in size from a pea to large plum-sized masses. They were numerous on the backs of the hands and feet and on the extensor surfaces of the limbs, and scattered upon the forehead and neck, and on the trunk. In appearance and to the touch, they resembled sarcoma of the Kaposi generalized and pigmented type, and the hard fused masses on the backs of the hands and feet, and the board-like hardness of the neighboring skin, increased the resemblance. Investigation, however, revealed the fact that the affection had begun but eight weeks before in the shape of small purplish nodules that had rapidly grown to their present size; papular and papulo-vesicular lesions have appeared in places, as well as more or less seborrhœal eczema, and distinct rheumatic symptoms. The lesions are undergoing involution under the salicylate treatment.

Dr. A. BLEIMAN,
Secretary.

MANHATTAN DERMATOLOGICAL SOCIETY.

52d Regular Meeting, June 1, 1906.

Dr. ROBERT ABRAHAM, Presiding.

Adenoma Sebaceum.

Presented by Dr. E. L. COCKS.

T. P., seven, idiot; admitted to Randall's Island Hospital, May, 1900. Mother states that even before that time she had noticed a group of small, hard, red papules on each side of the nose; they increased in number slowly, and lately they have been increasing in size also. The lesions have been unchanged while the patient has been under observation; they are round, bright red, almost crimson papules, do not become pale on pressure, and vary in size from a pin's head to a pea. Examination made by the pathologist showed hyperplasia of the papillary vessels and connective tissue, with increase in the size and number of the sebaceous glands.

Bromoderma Tuberosum.

Presented by Dr. E. L. COCKS.

J. B., epileptic, admitted to Randall's Island Hospital, June 20, 1904, aged nine. In October, 1904, was put on 10 grain doses of potassium bromide, t. i. d. April, 1906, eruption of discrete violaceous papules and tubercles on lower part of right leg. Strontium bromide, 36 grains

daily substituted. The lesions became larger and confluent, and finally broke down. At the present time there are tubercular and ulcerative lesions covering a large part of the right lower leg, and new papulo-tubercles have appeared lately. Removal of the crusts shows ulcerated areas with more or less hypertrophic granulation tissue. There has been much fetor, and oozing of a sanguineous fluid. The bromides have been reduced, 1:500 potassium permanganate solution and later salicylic paste applied. The ulcerated areas are apparently beginning to granulate healthily.

Dr. Gottheil believed that the unilaterality, the chronic ulceration and scar tissue formation, was against this being a bromide eruption of any of the usual types; he was inclined to call it *scrofuloderma*, or possibly a mixed tubercular infection. *Bromoderma* with added pyogenic infection was the diagnosis of several members. Dr. Cocks was inclined to believe that an additional tubercular infection was present, but he felt sure that the drug administered was the primary cause of the efflorescence.

Chancre of the Tonsil.

Presented by Dr. R. ABRAHAMS.

Female, twenty; began to complain of sore throat five weeks ago, when a small white patch appeared on the left tonsil. This gradually extended, until two weeks later it had involved the entire surface of the gland. Induration fairly marked; no tenderness; local cervical adenopathy moderate. No general symptoms, yet examination for diphtheria bacilli negative. Patient has been under observation since the beginning of her trouble, and there has been no change, save increase in size in the lesion, nor any fever or other symptoms. She is engaged to be married, and her fiance has a sore throat, though it has not been possible to examine him to ascertain its nature.

Dr. Oberndorfer believed that a tonsillitis could not possibly be limited to one tonsil for 5 weeks; it might be a Vincent's angina, but was more probably a sclerosis. Most of the members present agreed provisionally in the diagnosis.

Epithelioma of the Labium Majus.

Presented by Dr. A. C. GEYSER.

Mrs. B., forty-six years old and has eight children. One year ago a small, red pimple appeared on the left labium, which rapidly increased in size, and then broke down in the center. Treatment with caustics aggravated the condition, until there was a deep, ragged ulceration involving the greater part of the labium. Glands unaffected; no other symptoms. Four weeks ago X-ray treatment was begun, with the result that the ulceration has assumed a much more healthy appearance and has diminished considerably in size.

Dr. Weiss said the patient's good general health did not speak for cancer; he was inclined to believe the lesion syphilitic. Dr. Gottheil was of the opinion that the lesion was too extensive, too deep, and too rapid in growth for epithelioma; the labia were favorite sites for gummata, and he would suggest antileptic treatment instead of radiotherapy. Drs. Oberndorfer, Pisko and others agreed.

Lichen Planus Universalis and Psoriasis. Presented by Dr. W. S. GOTT-HEIL.

This man has suffered from psoriasis for forty years, and is naturally thoroughly conversant with the appearance and course of his old eruption. During the last few weeks a new set of lesions have appeared, most numerous on the backs of the hands, arms and legs, but also scattered over other parts of his body. With this he has had the entirely new symptom of intense itching; and the patient himself calls attention to the difference between the recent lesions, which are characteristic of lichen planus, and his old eruption, which is present in moderate amount.

In the opinion of Drs. Bleiman, Obendorfer, Weiss, and Cocks, lichen planus could be excluded entirely. The case was an atypical psoriasis with lichenoid lesions. Drs. Kinch, Parounagian, and Ochs agreed with the reporter.

Lichen Planus Annularis Atrophicus. Presented by Dr. LUDWIG WEISS.

This patient was a male aged forty, with typical lesions on the lower limbs, back, chest and arms. Both the circinate arrangement of the lesions, and the atrophy, which was quite marked in places, were unusual features of the disease.

Carcinoma of the Breast with Dermal Relapse. Presented by Dr. A. C. GEYSER.

Radical operation September, 1905; three months later nodules re-appeared in the scar and in the skin around it, and rapidly became fungous and cauliflower-like. Early this year she was put on X-ray treatment, which was pushed energetically. All the lesions have improved, and it is especially noteworthy that pain has ceased entirely. But small new lesions have appeared from time to time in the affected area.

Rodent Ulcer of the Forehead. Presented by Dr. A. C. GEYSER.

Patient presented to the Society at a previous meeting, with a lesion that he had had for fourteen years, and that had resisted all manner of treatment. Presented now to show results of X-ray treatment. The lesion is practically entirely healed.

Dr. A. BLEIMAN,
Secretary.

NOTICE.

SIXTH INTERNATIONAL DERMATOLOGICAL CONGRESS, NEW YORK, SEPTEMBER, 1907.

In the December issue of this JOURNAL, the announcement of the Sixth International Dermatological Congress, which is to be held in New York, September 9th to 14th, 1907, was published. This announcement contained the themes selected for formal discussion, together with a list of the gentlemen who will report on and discuss the same.

The first Congress of this kind met in Paris, in 1889, and since that time at intervals of about three years, it has been held in Vienna, London, Paris and Berlin. At the Berlin meeting in 1904, New York was selected as the meeting place of 1907 and Dr. James C. White of Boston, was elected president of the Congress, the following Organization Committee being appointed by him:

Dr. Chas. W. Allen (since deceased), New York; Dr. Andrew P. Biddle, Detroit; Dr. John T. Bowen, Boston; Dr. Edward B. Bronson, New York; Dr. L. Duncan Bulkley, New York; Dr. Wm. T. Corlett, Cleveland; Dr. I. Dyer, New Orleans; Dr. Geo. T. Elliot, New York; Dr. Martin F. Engman, St. Louis; Dr. John A. Fordyce, New York; Dr. Geo. H. Fox, New York; Dr. Thomas C. Gilchrist, Baltimore; Dr. Milton B. Hartzell, Philadelphia; Dr. J. Nevins Hyde, Chicago; Dr. Geo. T. Jackson, New York; Dr. Sigmund Lustgarten, New York; Dr. D. W. Montgomery, San Francisco; Dr. Prince A. Morrow, New York; Dr. Wm. A. Pusey, Chicago; Dr. Francis J. Shepherd, Montreal; Dr. Henry W. Stelwagon, Philadelphia; Dr. Grover W. Wende, Buffalo; Dr. James M. Winfield, Brooklyn; Dr. Joseph Zeisler, Chicago; Dr. R. R. Campbell, Chicago; Dr. W. S. Gottheil, New York.

President:

Dr. James C. White,
259 Marlborough St.
Boston, Mass.

Secretary-General:

Dr. John A. Fordyce,
80 West 40th St.
New York.

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REMARKS ON SYPHILITIC ALOPECIA.

By HERMANN G. KLOTZ, M. D., New York.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

THE hand and textbooks show a remarkable unanimity of opinion in discussing the affections of the hair in syphilis. The principal points in their descriptions are about as follows:

1. One of the early and most common symptoms of syphilis is loss of hair, or alopecia.

2. This alopecia may differ very much in the degree of loss of hair. It may be so slight as to escape notice on casual observation and hardly sufficient to attract the patient's attention, or may be so extensive that considerable areas or even the entire scalp becomes completely bald.

3. It consists principally of a thinning of the hair, irregularly distributed over the entire scalp, and is not restricted to certain localities such as the top of the head, the temples, etc., as in hereditary or some other forms of premature baldness.

4. As a rule it occurs without any structural changes in the skin as far as can be discovered on macroscopic examination, although some authors mention dryness and slight scaling.

5. This alopecia is a consequence of the general modification of the entire organism due to the infection with the virus of syphilis, and directly the result of malnutrition of the hair and its appendages.

6. The loss of hair may extend to other regions than the scalp, particularly to the eyebrows, beard or to all localities where growth of hair usually occurs.

7. Unless the patient is too advanced in years or subject to hereditary tendency to baldness, a more or less complete regrowth of the hair is to be expected.

8. Syphilitic alopecia is usually observed within from three to six months after infection, but may occur at any period.

9. Occasionally, instead of a general thinning, loss of hair

occurs in ill defined, incomplete, small and irregular patches, which sometimes coalesce. They differ from the clearly cut patches of true alopecia areata, and produce a "moth-eaten" or "mangy" appearance of the scalp.

Some early observations had made me somewhat skeptical with regard to the absolute correctness of some of these teachings. Therefore, in the numerous cases of syphilis that have come under my observation in the course of years I have taken particular pains to note the true condition of the hair. As the result of these investigations, I have come to conclusions somewhat at variance with the traditional and conventional teachings.

All authors agree that the loss of hair during the early period of syphilis may occur in so unobtrusive a form, that it may entirely escape the observation of the patient or hardly attract his notice. To speak of such conditions as cases of syphilitic alopecia or defluvium capilliti, and to use them as a foundation for the claim, that loss of hair is an almost universal symptom of syphilis, is hardly justified in the face of certain well established facts, and to an unprejudiced observer such a view must appear absurd, misleading and mischievous. It is only necessary to remember that in every healthy person a certain loss of hair is constantly going on, with occasional temporary exacerbations, old hair falling out and new hair growing in from the papillæ. This physiological process has been principally studied and clearly established by Unna. The majority of individuals are not aware of these phenomena, and as long as they are in good health, do not pay the slightest attention to them, having come to regard them as something perfectly natural. Once infected with syphilis and having been informed of the probability of some loss of hair by the perusal of the encyclopædias or medical books, by communications from their friends or more probably by the assiduous questioning of their physicians, which are imbued with the rampant ideas about the inevitable alopecia, they will begin to watch themselves. Indeed, they will find a few hairs in the comb and so they will promptly report to their physician that they are losing their hair. He, in his turn, usually without much investigation on his own part, will duly record another case of syphilitic alopecia instead of recognizing a simple physiological phenomenon.

Further, although as a rule it is held that no macroscopic cutaneous lesions or changes can be discovered in this form of alopecia, some authors mention the presence of a mild furfuraceous desquamation during the period of loss of hair. Here, again we must remem-

ber that a mild condition of what is usually described as pityriasis or seborrhœa capillitii is present on the scalp in numerous men and women, without ever attracting attention even if accompanied by a moderate amount of loss of hair. Such a "dandruff" is accepted by many as a perfectly natural occurrence which does not call for any attention or treatment.

If, however, they become aware of being infected with syphilis, the spectre of threatening baldness will promptly rise in the patients' mind. They at once will take cognizance of a certain amount of hair removed by combing, and thereupon report to the physician, who, looking for the inevitable syphilitic alopecia, will faithfully record the appearance of the traditional symptom without carefully examining the scalp. Such cases are by no means rare. In my own experience in quite a number of instances the syphilitic infection became instrumental in the preservation of a fair amount of hair instead of causing its loss, because the patients were now found willing and ready to apply the usual nonspecific local remedies with sufficient diligence and perseverance to assure success.

Under the usual interpretation of the common syphilitic alopecia these two classes undoubtedly furnish a large majority of all cases so recorded, although they have practically not the slightest connection with syphilis and therefore ought to be entirely eliminated as a symptom of this disease. There remains, however, a moderate number of cases in which, indeed, malnutrition and subsequent decadence of the hair occurs, sometimes becoming manifest only by a dry and lustreless condition of the hair or by an almost entire loss of the hair not only of the scalp, but also of other hairy portions of the body, evidently as the consequence of the general infection of the system with the syphilitic virus, and as a result of malnutrition of the body in general. Such an effect is not a specific one, peculiar to syphilis, but is more or less commonly observed in infectious diseases, particularly in those of a short, cyclic course attended by high fever like typhoid fever, erysipelas, septicæmia and the acute exanthemata with or without participation of the scalp in the concomitant skin lesions. As a rule it is proportionate to the intensity of the intoxication and of the symptoms as expressed principally by the rise of temperature or degree of fever. With the exception of the less frequently observed cachectic conditions of the later stages of syphilis which need not be considered here, the character of syphilis as an infectious disease becomes manifest particularly in the second incubation period preceding the usual secondary eruption of the outer in-

tegument and the appearance of lesions of the mucous membranes. During this period a large number of patients seem to enjoy absolutely undisturbed general health, objectively and subjectively; this accounts for the comparatively large number of cases of syphilis overlooked and unrecognized, particularly in women. Others experience a moderate loss of weight, a certain degree of anæmia, but do not undergo any greater loss of strength or mental depression than would occur under many other circumstances, or than could be accounted for by the psychic effects of the infection. A number of patients, however, usually without any apparent reason, develop more serious symptoms: more or less intense headache, and "rheumatic" pain in other parts of the body and the extremities, with or without sensitiveness on pressure, accompanied by loss of appetite and sleep, and not so rarely, by a considerable rise of temperature and night sweats. Not infrequently these symptoms are followed by a more or less malignant course of the secondary manifestations, while in other cases the further course of the disease does not differ from that in cases with none or only slight prodromal symptoms. In such cases a loss of hair, usually in a degree proportionate to the general and nervous symptoms, is very frequently observed accompanying or following the appearance of the secondary symptoms. Although no obvious structural changes can be demonstrated in the skin, which could explain the loss of hair, we cannot absolutely deny their existence. For a number of cases we have to consider the possibility of a macular syphilide of the scalp as the cause of this early alopecia, and it must be conceded, that such syphilides occur oftener than they are recognized or recorded, usually as part of a more or less generalized eruption, and that they may be accompanied by certain structural changes peculiar to syphilis. But whenever we can exclude such a condition, whatever changes there may exist, they will not be different from changes found in connection with or in the course of other infectious diseases. The alopecia then bears the same relation to syphilis as does the alopecia following typhoid fever to that disease, or to its cause, the bacillus of Eberth. It cannot, therefore, be considered a specific symptom, directly due to the syphilitic virus, but rather a complication, a parasymphilitic phenomenon if you accept the term, due to toxins our actual knowledge of which is still rather vague.

Besides this more general alopecia, most authors describe a form of alopecia in which the loss of hair occurs in round or oval, not sharply defined patches, usually the size of a finger nail. These patches may be grouped closely together, not symmetrically ar-

ranged, usually distributed more over the back and upper portion of the head. They produce a peculiar appearance, by some described as moth or mouse-eaten, or mangy, or looking as if the hair had been carelessly cut with a dull pair of scissors (Jackson). Others (Brocq) describe the condition as alopecia in clearings, a very appropriate term, considering the similarity of the patches to clearings in the forests, for they do not present the sharply defined, clean surface of alopecia areata. They are more irregular, of a dirty white color, sometimes partly scaly, with long hair, single or in groups or occasionally some stumps of hair remaining scattered over the surface. The condition does not cause any subjective symptoms like itching, but owing to its conspicuousness becomes a source of great annoyance, the more so as, except in a few cases, this form of alopecia alone justifies a diagnosis of syphilis. Bald patches sometimes appear on the bearded portion of the face and particularly in the eyebrows, either as a break of the arch or as complete loss of the outer portion (Fournier). In literature this alopecia in patches is usually found identified with the general alopecia and described only as a variety; it is supposed to appear at about the same period of the disease, *i. e.*, three to six months after infection, but with very few exceptions it actually appears at a later period, usually during the second half of the first year and as late as the end of the second year of the disease. No anatomical changes in the skin can be demonstrated, which would explain the occurrence of this circumscribed loss of hair. If the general disturbance of nutrition is to be held responsible for the falling of the hair, it is difficult to explain why it should be restricted to certain areas. The appearance of this imperfect alopecia areata almost exclusively in individuals, who are within a certain stage of syphilitic infection, more than suggests a close connection with some local action of the syphilitic virus, the nature of which has not yet been demonstrated, and justifies its classification as a specific manifestation of the late secondary class. It usually follows a tediously sluggish course, extending over months and even years, thereby causing great annoyance and mental agony to the patients. In most instances it is finally followed by more or less complete restitution of the hair. Quite recently (*Arch. f. Derm.*, lxxviii., p. 241) Leiner has called attention to the identity of alopecia in hereditary and acquired syphilis. In both the loss of hair may be diffuse or circumscribed; in hereditary syphilis both forms seem oftener to occur simultaneously, but the circumscribed patches usually appear after the disappearance of the exanthema, often at a later period; both

forms are independent of syphilitic lesions of the scalp and probably due to a disturbance of nutrition.

It is only necessary to mention the so-called secondary alopecias of syphilitic origin, that is the localized loss of hair due to structural alterations of the skin, caused by lesions of the tubercular and gummatous ulcerative types as well as by some pustular and papular eruptions. Here the loss of hair is due to the incidental destruction of the papillæ and the entire hair-producing portion of the skin, and its cicatrization. The final product of the local syphilitic process, the scar tissue, is not different from that produced by destructive processes of other kind and origin. These secondary localized alopecias therefore cannot be considered of a specific nature.

In accordance with the foregoing considerations, I would summarize my conception of syphilitic alopecia as follows:

1. Alopecia or loss of hair is *not* a common or regular symptom of the early stages of syphilis.

2. The slight loss of hair, which is constantly taking place in healthy individuals as the result of the physiological change of hair, continues its existence through and beyond the course of syphilis and must be taken into consideration before attributing to syphilis a loss of hair, so slight as to pass unnoted or scarcely attract the patient's attention.

3. The same rule applies to numerous cases of slight seborrhœa of the scalp, which under ordinary conditions would not be considered worthy of notice or treatment.

4. In a certain number of cases syphilis may be accompanied by a diffuse loss of hair, which may extend more or less over the entire scalp, varying in degree, similar to that observed after other infectious diseases, such as: typhoid fever, erysipelas, etc.

5. In the absence of any discoverable local changes in the skin, this alopecia is apparently the result of malnutrition of the hair, its appendages and the entire skin as part of a general modification of the entire organism by the infection with the virus.

6. This alopecia is therefore not strictly a symptom of syphilis, directly due to the virus, but rather a complication.

7. This alopecia is directly dependent upon and in most instances proportionate to the general symptoms, which may accompany the second period of incubation and usually makes its appearance several weeks after the onset of these prodromal symptoms, similarly to other infectious diseases like typhoid.

8. Although this alopecia may be very extensive and affect

other portions of the body, it shows a tendency to more or less complete restitution of the hair, unless the patient is too advanced in years or is a subject of hereditary tendency to baldness.

9. An alopecia occasionally occurs in the form of ill-defined irregular, small, sometimes coalescent patches of baldness, distributed principally over the back and upper portions of the scalp, and giving it a mangy or moth-eaten appearance.

10. This alopecia is observed almost exclusively in syphilitics, and is so characteristic, that with extremely rare exceptions, it is diagnostic of syphilis of the affected individual, either acquired or hereditary.

11. This alopecia is a characteristic symptom of syphilis, and almost always occurs at a period more or less remote from the time of infection, usually not before the end of the first year and up to the end of the second year. It generally follows a very tedious course, although terminating in restoration of the hair.

12. In the absence of any discoverable anatomical changes of the skin, due to a local specific process, it is very difficult to explain the origin of this alopecia in patches.

If any apology should seem necessary for bringing this matter before you, I will say that this is a question of great practical importance for the patients as well as for the physicians. You all are well aware that one of the first and one of the most frequent questions put by the patients newly infected with syphilis is whether they are going to lose the hair, for premature baldness, sunken-in nose and other mutilations of the face are the common bugbears of those unfortunates. You also know how syphilitic patients are inclined to minutely watch every little symptom, to exaggerate its importance and to worry about every slight phenomenon. Let them discover the slight loss of hair due to natural causes or to a mild seborrhœa, and let them understand that it is due to syphilis, they will naturally expect it to cease under treatment or at least at the proper time when the symptoms of the disease are expected to disappear. But if it continues unabated under such circumstances, they will, quite logically, feel that they are not cured or free of manifestations of the disease as long as they lose some hair, and will continue to worry themselves or possibly you, by their constant entreaties to stop the loss of hair. To try to explain at this stage the innocent nature of the phenomenon, will hardly impress them, as more than an afterthought invented for their benefit and will not ease their mind. It is not necessary to further depict the mental condition of such syphilo-

phobes, which deserves our most earnest consideration as well as our sympathy.

I do not expect that any one of you will at once accept my views, unless he had previously begun to consider with some suspicion the correctness of the usual teachings of syphilitic alopecia. But I beseech you and particularly those among you, who by oral and written teaching, influence the present and the future generation of our profession to carefully and without prejudice, look once more into the question of syphilitic alopecia.

DISCUSSION.

Dr. GEORGE T. JACKSON said he agreed with Dr. Klotz that alopecia, was not as common a feature of syphilis as was ascribed to it by the textbooks. The only type of syphilitic alopecia that he regarded as absolutely pathognomonic was that in which the hair had a ragged, mangy appearance, as though it had been hacked off, or clipped with a pair of dull scissors. In this type, the patches were very irregular. It was observed, in the speaker's experience, rather earlier in the course of the disease, than the reader of the paper had stated—more frequently before the end of the first year than afterwards. He also agreed with Dr. Klotz in regard to the other type of loss of hair in syphilis which was due to destructive lesions, and which was usually referred to in the books as alopecia.

Dr. ROBERT W. TAYLOR said he had only a few words to add to the description of the syphilitic alopecias given by Dr. Klotz. He would classify the various types as follows: 1. Alopeciaphobia, by which he meant an ordinary defluvium capillorum, the danger of which was much magnified in the mind of the patient, who was afraid of losing his entire hair. 2. A shedding of the hair, such as occurred in many adynamic diseases. 3. The moth-eaten, characteristic form of syphilitic alopecia occurring in spots. 4. An alopecia due to syphilitic lesions.

Dr. JAMES NEVINS HYDE said that while the "moth-eaten" appearance of the hair to which Dr. Klotz had referred, was very characteristic of syphilis, and was usually accompanied by other well marked manifestations of that disease, he had seen distinct exceptions to that rule. He recalled such a case which came under his observation over fifteen years ago. The type of alopecia was quite characteristic, but a very thorough examination revealed nothing further than one slightly enlarged gland. The case was pronounced one of syphilis, and that diagnosis was afterwards confirmed by Dr. R. W. Taylor, who saw the patient in New York. The man went to Europe, where he spent several years, and subsequently developed tabes dorsalis.

Dr. Hyde said that this case was a good illustration of the fact that this typical form of syphilitic alopecia was at times observed in patients who at the time had few if any other symptoms of generalized syphilis.

Dr. CHARLES J. WHITE said he had seen two cases of this moth-eaten type of syphilitic alopecia which went on to total and permanent baldness.

Dr. JOSEPH GRINDON had seen marked alopecia of this type occurring in individuals who gave a very uncertain syphilitic history. He recalled the case of a young man with an absolutely characteristic patch of alopecia of this mangy, multiple, moth-eaten type, who confessed to having had a venereal sore about four months previously, which he had been assured was not syphilitic. Dr. Grindon pronounced the case syphilis. The patient returned a week later with a lesion on the tongue which was quite characteristic of syphilis.

Dr. Grindon said he would raise two queries: First, whether these multiform patches of alopecia were always of syphilitic origin; and, second, whether the members agreed with Dr. Klotz that the condition was at times observed in hereditary syphilis? Personally, the speaker regarded the condition as absolutely pathognomonic of syphilis, but did not believe that it occurred in hereditary syphilis.

Dr. STELWAGON, in response to Dr. Grindon's question as to whether this type of alopecia was always indicative of syphilis, said he could hardly agree that there was any type that was invariably syphilitic. He referred to the epidemic of cases of alopecia reported by Dr. Bowen which were not syphilitic, although objectively quite characteristic of that disease.

Dr. JAMES C. WHITE said that in the epidemic cases of alopecia areata which had been referred to as reported by him, the patches were not of the exact type of those observed in syphilis. They were more irregular and angular in outline, and differed otherwise from the "moth-eaten" patches observed in syphilis. On the other hand, neither did they entirely conform to the ordinary, non-epidemic type of alopecia areata, and anyone with much experience would have readily recognized the difference between them and the syphilitic type.

Dr. ROBERT W. TAYLOR said he thought the moth-eaten patches of alopecia on the back of the head were as pathognomonic of syphilitic infection as was the serpiginous syphilide, which Ricord used to refer to as the *signature de la syphilis*.

Dr. GROVER W. WENDE said he had observed one case similar to that reported in the course of the discussion by Dr. Charles J. White. The patient was a woman who developed alopecia in the early stage of syphilis, and the loss of hair progressed to a complete baldness, which had persisted up to the present time. The lesions did not present any of the ordinary features of alopecia areata. It appeared to the speaker that this special form of alopecia was due to syphilis—a condition wholly differing from the usual ordinary syphilitic alopecia.

Dr. FRANK H. MONTGOMERY referred to the case of a young girl who presented a typical example of this moth-eaten type of alopecia, but gave no other symptoms or indications of syphilis. She was treated expectantly, and subsequently developed a characteristic area of alopecia

areata. She was under observation about a year, at the end of which time there was some return of the hair.

Dr. THOMAS C. GILCHRIST said it was sometimes difficult to decide as to what type of alopecia we had to deal with. Examples of this were met with in rare occasions in young men, who had no eruption nor other symptoms of syphilis. He recalled such a case in which the alopecia practically involved the entire scalp, and the patient subsequently developed other symptoms of syphilis. Another case was called to mind in a negro, where the hair was closely cropped and the bald patches seemed to correspond with a macular eruption of the scalp.

Dr. KLOTZ, in closing the discussion, said the point he particularly desired to emphasize in his paper, was that alopecia was not a common symptom of early syphilis and he was glad to hear that Dr. Jackson, who had devoted so much time to the study of the hair, had come to the same conclusion. The form of alopecia that occurred in late syphilis, and was due to destructive lesions, was entirely distinct from alopecia areata. The speaker said he agreed with Dr. Hyde that characteristic syphilitic alopecia might be present at a time when there were none or few other symptoms of syphilis, and this was particularly so in patients who had been under treatment.

In reply to Dr. Grindon's statement regarding the occurrence of this form of alopecia in hereditary syphilis, Dr. Klotz said that he referred to Leiner's article in the *Archives for Dermatology*, which was accompanied by a photograph of such a case showing quite characteristic features. The speaker said that personally he had never met with the condition in hereditary syphilis.

PHAGEDENIC AND SERPIGINOUS ULCERS AND INFECTIVE GRANULOMATA.

By WILLIAM F. BREakey, M. D.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, Ohio, May 31, June 1 and 2, 1906.

THE following case is reported, not for its rarity alone, though its duration is very unusual, but for some inconsistent data in history and etiology, making diagnosis uncertain; and for the opportunity offered of making comparison with various (so-called non-venereal) ulcerating granulomata, and with hope of evoking a discussion that may be more profitable than the paper.

About six weeks ago, S. B., age twenty-six, presented himself with a large superficial serpiginous ulcer, somewhat resembling a crooked-neck gourd in shape, reaching about six inches diagonally

across the posterior side of right thigh, between middle and lower third (see photograph No. 3).

The floor of the ulcer was covered with irregular coarse, red vascular granulations which bled easily, bathed with a seropurulent liquid, the edges of the more dependent part, burrowing under the integument in places from one-eighth to over one-half inch, with a faint shade of inflammatory redness and tenderness outlining the extent of undermining. The border of the cicatrized parts thin and pale, and adherent to subjacent tissue was beveled down to level of the ulcer. The large part of upper two-thirds of thigh on anterior outer and posterior surface of hip and groin, was covered with shrunken pale scar tissue, with patches of wrinkled integument and some thin bridges, under which phagedenic process had eaten, connecting other patches of unbroken skin.

He was fairly well nourished. His family history was good. His parents, two brothers and one sister, are living in good health; no brothers or sisters dead; father's parents lived to about sixty, mother's father died at ninety-six, mother's mother living, over eighty.

He gave the following history. About six years ago a sore appeared on the mucous surface of prepuce, slightly to right of median line following sexual intercourse—at first he stated within two or three weeks, later upon further inquiry, he could not be certain about the length of time, but thought it might have been anywhere from two or three days to as many weeks. There was no other known exposure within a month or two before. The sore did not impress him at that time as important. To the best of his recollections it was flat, not hard, nor painful, did not extend much after he first discovered it. It did not become much larger than a quarter inch in diameter, and healed in a few days without special treatment. He had no medical advice on account of it, nor until a lump appeared about a week or two later in his right groin, which enlarged and became tender and painful. He did not inform the physician who was called to see him, nor anyone of the history of the genital sore, and his family called the lump in the groin "scrofulous." The bubo was poulticed for several days by advice of the doctor, and then "lanced" within two or three weeks after its appearance, giving exit to a thin, somewhat sticky discharge, mixed with blood and pus, and affording immediate relief from the pain.

The sore from incision of abscess did not perfectly heal, and became ragged in edges and burrowed, undermining skin at first in a downward direction an inch or two, then extending obliquely upwards in a track an inch or more wide, to a point above anterior superior spinous process as shown in photograph No. 1, nearly two years being consumed by the extension of the ulcerative process to this point, the incised gland meanwhile, with ulcerative surface below,

healing and leaving a thin, pale scar. The phagedenic process then turned outward on hip and then downward on anterior and outward surface of thigh, as seen in photograph No. 2, and still later on posterior side of thigh and downward where ulcer is now seen as in photograph No. 3.

The patient states that the ulcerative surface has changed much in size during the six years of its continuance, and though nearly covered over more than once it has never wholly healed.

He had no medical treatment after the lancing of the bubo until last October, when he went to a mineral springs bath house establishment, where he stayed for three or four weeks, taking the usual prescription of twenty-four baths, *one every day*; and going back for treatment once in one to three weeks for a few weeks following. He did not rest at this time or previously, but walked a good deal. Treatment and baths did no good. The ulcer became much larger. Throat was not sore any time before, but became sore soon after beginning this treatment. Also two fingers on left hand became inflamed and the nails came off, and thumb nail became curved and atrophied in color. His appetite, digestion, and general nutrition failed and he lost weight. He understands that he was taking mercury and iodides at this time, under the supposition of the physician that the patient had syphilis. The mercurials and iodides were later discontinued and change of diagnosis to lupus or tuberculosis of skin was made, and more supporting measures undertaken. He gave no history of adenopathy or of skin lesions, and none were present when I first examined him. There had been slight falling of the hair since taking the mercurials, not notably before. Slight follicular pharyngitis exists.

Examination of urine negative. No history or evidence of gonorrhœa.

Pathologists' report of microscopic examination of section of skin clipped from margin of undermined skin was "*infective granuloma*." See microphotograph.

Blood count (fingers), Reds, 4,825,000, Leucocytes 9,167.

Blood count (ulcer), Reds, 4,640,000, Leucocytes, 8,148.

(This is given as a fact of interest, whether significant or valuable or constant, I do not undertake to say. It might be due to error or difference in technique.)

Hemoglobin 80 to 90%. Stain preparations did not show any organisms.

Some few years ago, a case of which I cannot now find definite

notes, came under my observation for a day or two, with history similar in some respects, but with clinical conditions and phenomena quite unlike the one presented.

A man between twenty-five and thirty years old, came to consult me, with a cauliflower-like mass as large as a small orange, situated high in the right groin and apparently representing a coarse granular tumor, with a base of the same area of ulcerating integument, and deeper tissue. But upon examination, it was found to be the expansion of a short pedicle not large than a small finger, but which reached into a brawny mass. There was a history of chancreoid infection on genitals, nearly or quite a year before, the glandular tumor occurring soon after, and continuing in varying forms and degrees of ulceration to the time I saw him.

I advised excision of projecting mass which would give opportunity to examine source of pedicle and for probable cauterization. He could not arrange to stay under care, but proposed to come back later.

I did not see him again, however, but some months later I read in a medical journal report of a case which I recognized as his. Two or more operations had been made—I quote from memory—at an interval of some weeks or months. First, an effort to remove the deep tumor mass, and attempt some time later to enucleate inguinal glands on left side, which had meanwhile become infected by phagedenic extension, but in which operation the iliac or femoral vein had been injured, and the patient died from phlebitis and general sepsis.

There is enough in the history of these cases to make interesting a comparison with the various conditions—more prevalent in the tropics of which the “Gramuloma Inguinale Tropicum,” and the “Lupoid form so-called, of Groin Ulceration of British Guiana,” may be taken as representatives as also “Ulcerating Granuloma of the Pudenda,” “Granuloma Pyogenicum,” etc.

Without going into details, needless for this body, it will be observed that many of the cases reported under the above named and similar titles, have much in common with the case here presented, particularly in showing phagedena in some form, though more often perhaps, in more rapid and deeper sloughing, and greater destruction of tissue, involving muscles and joints.

Congers and Daniels have furnished much of the literature on this subject in former years.

Fournier reports a phagedenic chancreoid of fourteen years' duration. The history and literature of phagedena shows no uniformity of general predisposing causes nor of clinical behavior.

Among current aphorisms concerning phagedena may be mentioned that "it may occur either as deep sloughing or superficial and serpiginous." "It is not limited to chancroids." Any ulcer syphilitic or simple may be attacked by it. "It is a peculiar quality of the individual," etc.

Yet some poorly nourished persons escape it, while comparatively vigorous persons have suffered from it.

The experiments of Fournier, Sperino and Rollet, and others have shown, that the pus from phagedenic ulcer of long standing will not produce hetero-inoculation.

My patient had not taken pains to avoid auto or accidental infection. Apparently the infectious processes become less active and less virulent, or the tissue better resists the virus in some cases of slow phagedena.

It is easy to see how the old mooted question of a specific chancre virus might arise. But without discussing that, turning the proposition around, it is pertinent to ask, are all so-called chancroidal lesions *infective granulomata*, in the acute or at any stage?

Making all allowances for the defective memory of my patient and uncertain history of incubation, there seems little room for doubt that the sore on the glans was the result of infection in intercourse, and that the suppurating inguinal gland resulted from the sore. The tendency to suppuration in subcutaneous tissues in the inguinal tract, the abundance of lymphatics, the heat and moisture of the parts are usually credited as predisposing causes in those cases which it is assumed have their origin in inguinal glands.

But the question suggests itself whether more of these cases did not begin as this one, and those mentioned by Crocker, Hyde, Keyes and others, with a genital infection, and from uncleanness in many cases, suffer more than an ordinarily virulent pus cocci infection.

Just why in one case there is deep sloughing, and in another superficial peripheral extension, and undermining skin is not clear, even under the theory that phagedena is systemic.

Among the reasons why the history of the case does not correspond to syphilis, may be mentioned the description of the sore, so far as it can be given, in *stage of incubation*, in *lack of induration*, in *lack of any known secondary lesions*, in but *one bubo* and that on *right side*, tender and painful, and in *no tertiary lesions*—unless this ulcer could be so called—and failure to respond to anti-syphilitic treatment. There is no history or evidence of tuberculosis or of lupus. The local treatment for the few weeks he has been under my





care has been in brief, trimming, curretting, and cauterizing (with carbolic acid and once with the paquelin cautery), the undermined edges of bordering skin, the floor of the ulcer covered for a few days with a mixed hydrarg. nitrate, diach. and rose ointment, and later with ungt. hydrarg. am. in place of nitrate. Still later with dry fuller's earth, the covering gauze smeared with petrolatum to prevent sticking, bandaging and rest; and the last two or three weeks, the X-ray cautiously, two or three times a week. Later discontinued.

Immersion of the ulcer has never been tried.

Internally, good supporting, diet, iron, ammonia, citrate, and tartrate, strychnia, cod liver oil, etc.

The size of the ulcer has diminished about one-half, the neck being bridged over, leaving two ulcers, one circular about an inch in diameter, the other irregular in shape about one and a half by three inches. While this progress is encouraging, the erratic course of such ulcers does not warrant a sanguine prognosis.

DISCUSSION.

Dr. HERMAN G. KLOTZ called attention to an article by Thalmann which appeared in the *Archiv f. Dermatologie*, lxxi, 75. 1904. under the title of *Ulcus Gonorrhoeum Serpiginosum*, in which he reported two cases of long duration, both in females, and referred to the great similarity of these lesions to *ulcus molle serpiginosum*. Newly formed ulcers resembled follicular chancres, the process spreading in the subcutaneous tissue, with consequent breaking down of the cutis. They also appeared on the mucous membranes, and were cured by the energetic application of silver nitrate. Both began as a suppurating bubo.

Dr. Klotz said that in former years he had had occasion to treat a number of these indolent buboes. The majority of them appeared in men with chronic gonorrhœa, and the possibility of the presence of the gonococci in the tissues in these cases, should always be borne in mind. In several similar cases which came under his observation in the German Hospital in New York, the lesions proved very obstinate. One was quite superficial, and was finally healed by injections of a mild solution of bichloride of mercury.

Dr. BREAKEY said that in giving the histories of his cases, he had omitted to state that examinations of the urine were made with negative results. There was no evidence nor history of gonorrhœa.

NOTE.—At the time of correcting proof, Oct. 6, the ulcer had entirely healed. A large part of the margin, undermined by the phagedenic process was dissected away and cauterized and dressed antiseptically. An aqueous solution of argyrol was painted on the whole surface of the ulcer, proving to be the most efficient of the various applications tried.

W. F. B.

SOCIETY TRANSACTIONS.

NEW YORK DERMATOLOGICAL SOCIETY.

346th Regular Meeting, December 18, 1906.

Dr. MEWBORN, President, in the Chair.

Case of Superficial Epithelioma, showing the effect of X-ray. Presented by Dr. G. T. JACKSON.

The patient, Mr. A., is forty-seven years of age. About seventeen years ago, and some three years after a fall, which left a purplish scar, the present disease began. The scar began to grow larger and to have a crusted edge. Ever since then the disease has continued to spread slowly, with a crusted edge, leaving cicatricial tissue behind it as it crept over the surface. It has been curetted and treated with electricity, and with several ointments.

On May 30, when the patient came to Dr. Jackson for treatment, there was in front of his left ear and running up into the hair on left temple, a red patch which on the cheek was about $3\frac{1}{8}$ inches long and 2 inches wide; irregular in outline with a slightly raised, crusted border, and an uneven surface showing scars as if from many small ulcerations. X-rays were used. They were incited by a 12-inch coil in a Müller's self-regulating medium tube. Beginning with exposures of four minutes with the tube at ten inches, the time of exposure was gradually increased to fifteen minutes, and the distance decreased to five inches. Sitzings were given three times a week. By the sixth exposure the border began to flatten. By the tenth exposure all ulceration had ceased.

On July 14 nothing was left but a fine border to the outside, and at the lower edge of the patch, and some crusting under the hair. The latter region had practically received no treatment.

October 4, 1905. During the summer nothing was done. Everything was as in July. The rays were applied again. After 25 exposures all seemed healed, and about December 1, 1905, he was told to cease coming until some fresh manifestation.

April, 1906. The patient came again with two small ulcerated points. These were curetted and touched with potassa fusa. They healed promptly.

October, 1906. Everything is sound but under the hair, where the disease is evidently spreading. Since then he has had 21 exposures, and now the disease is pretty well under control. At no time has there been the least sign of reaction, not even an erythema. The hair has all come out, and that is the only untoward effect.

While it is true that by other methods the disease might have been cured much more rapidly than by the X-rays, the advantages of the rays have been that the patient has not been in the least incommoded in his work, nor suffered the least pain; and, most of all, the scar is more perfect than would have resulted by any other method.

Dr. WHITEHOUSE said that no other treatment could have yielded a better result. The cosmetic effect is certainly excellent, and the disease is held in abeyance; if it is followed up continuously there would probably be no recurrence. There is still a little disease present, but the result is perfect as far as it goes.

Dr. Fox said that it was certainly a good result for such an extensive lesion. Dr. Jackson had spoken of the length of time required for the treatment, but still thought it was better than any other method would have been, as it did not interfere with the man's business, gave him no pain and secured a better result. Dr. Fox said that he was inclined to take exception to this statement, for by a thorough curettage a cure could be effected in much less time than by the X-ray, and it need not interfere with the patient's business. It certainly did not do so in his practice. The treatment was more or less painful unless cocaine was freely used, but as for the resulting cicatrix, an equally smooth scar could be obtained after curetting. In the smaller lesions, especially, one could obtain perfectly smooth and white cicatrices in this superficial form of epithelioma.

Dr. FORDYCE said, like every other skin disease, epitheliomas differ in malignancy. He would not be satisfied to treat a case with a curette alone, but would always follow curettage with a galvano-cautery or other destructive agent. He had in numerous instances seen rapid growth of such affections after imperfect treatment. In certain cases the best cosmetic effects are obtained from X-rays. In many, however, a recurrence is to be looked for. At present he has four or five cases in which no recurrence has taken place in from one to three years.

Dr. WINFIELD said that Dr. Jackson had certainly obtained a very pretty result. This superficial variety of epithelioma will run for a long term of years, and yields to X-ray treatment more readily than any other form. In reference to the careless use of the X-ray, he had seen a case recently which showed the necessity of men knowing something about skin troubles. The patient had consulted with Dr. Jackson as to the advisability of using the X-ray. The patient was an old woman with a sebaceous wart that had degenerated. The X-ray treatment was recommended, and she went to a radiographer—a diagnostician. The ray was used three times. A week later she consulted the speaker who found a serious burn and the growth of the epithelioma apparently stimulated. The operator had not shielded her forehead at all. Had he been a dermatologist he would have cured the case.

Dr. FORDYCE stated that Jonathan Hutchinson, Jr., had recently stated that squamous-celled epitheliomas in lymph nodes do not respond to X-rays.

Dr. Fox said that, referring to the question of curetting, he would like very much to show a score or more of cases that his assistant had treated at the Skin and Cancer Hospital. He goes over them rough-shod with a curette, and it is simply a question of a few operations. There are some epitheliomata which cannot be destroyed by the curette, and he would not advise treating epithelioma of the lip by curettage. He had seen some deep cases of epithelioma involving the lymphatics, where he had used the curette and the disease had gone on from bad to worse. One old man had epithelioma near the ear, and it was scraped, but went deeper and deeper; finally the X-ray was used, but the case terminated fatally. Dr. Fox said that he was convinced the curette was the best treatment for various forms of epithelioma. In these superficial forms, it is almost as easy when scratching the crust off to make a diagnosis, to go a little deeper

and destroy the growth. If it returns, it is a simple matter to do it again. With the curette alone, he believed that all these superficial epithelioma, not involving the lymphatics, can be cured. As a matter of fact, however, he dips the curette in pure carbolic acid and often uses nitrate of silver, to bore into any depressions and to form a black crust. When this comes off the ulcer heals quickly under a mercurial plaster, and the resulting cicatrix is perfectly smooth and not pitted in the least degree. This treatment of epithelioma is easy and quick, though of course it is more or less painful without cocaine, and some patients object to it on that account.

Dr. SHERWELL agreed with Dr. Fox largely in his remarks as to the general efficiency of deep and thorough curettage in these troubles; he almost always used strong escharotics, applied immediately thereafter, and had been using this method with satisfaction for over twenty-five years. The point that had struck him most in this particular case was the good effect of the X-ray in the repeated use after intervals of time. He had noted in some cases at least, that after the first (and beneficial) result of the X-ray, if recurrence took place, the resumption of the same treatment had apparently irritative and injurious effects. Did unskillful use or something else cause this? He was not prepared to judge, but as a matter of fact, had seen it repeatedly.

As to the efficacy of curettage, he was continually meeting old patients whose existence he had forgotten in the lapse of many years, who reported cure, *i. e.*, no recurrence after this method had been used.

Dr. Fox said that some time ago the society had discussed a case of curettage in lupus, and he had proposed to treat half of any extensive case of lupus with curettage, and let some other member of the society treat the other half with X-ray, liquid air, or any other method, and then compare results. He hoped soon to have a case on which this demonstration could be made.

Dr. JACKSON said that he thoroughly believed in curettage and preferred it in most cases. Some patients dread any operation, and he gave such the choice of X-rays. This man objected to an operation as it would interfere with his work, so the X-rays were tried and he did well. In this superficial form of epithelioma X-rays certainly do good work.

Another patient of his who had suffered from a superficial epithelioma for twenty years, had gotten entirely well under the X-ray treatment, and had remained for more than two years without the slightest return, being still well. He believed that curettage followed by some powerful caustic, such as caustic potash or acid nitrate of mercury, was the best method for treating epitheliomas of small size. For large ones, arsenical paste was to be preferred; while epithelioma of the lip should be excised.

Case of Sycosis. Presented by Dr. WINFIELD.

The patient was from the King's County Hospital. He was first admitted to the clinic two and a half years ago. Examination of the hairs of the beard and eye-lashes, showed the presence of the trichophyton. As the blepharitis appeared to be eczematous, culture of the ciliae showed growths of the same ringworm. He received about 20 X-ray exposures, and had left the hospital apparently cured. After six months he returned to the hospital with the face nearly as bad as at first. Seven exposures after being in the hospital three weeks, had again caused the condition to improve. The case was shown because of the trichophytosis of the eyelids and the rapid improvement under X-ray.

Dr. FORDYCE said the clinical picture now was one of ordinary staphylogenic sycosis, where we sometimes see an accompanying folliculitis of the margins of

the lids. The trichophyton, which Dr. Winfield had found, might have been a secondary infection.

Dr. Fox said that he would consider it a case of typical sycosis, and if the trichophyton were found he should regard it as distinct from the sycosis. As to treatment by X-ray, he had long found that sycosis is an extremely obstinate affection, and in many cases it is not cured by the remedies laid down in books. There are few skin diseases which had so much to do with the general condition of the patient; and he has little faith in the various ointments and applications which have been so much vaunted. The practice of depilation goes to the root of the matter, whether this is done by the forceps or by the X-ray. The X-ray will not cure the condition, unless it produces alopecia. He had had a case under X-ray treatment for a number of months, which improved as the hairs fell. Bald patches were left on either cheek, but the disease spread at the margin and got worse. After trying various forms of treatment, it was finally cured by persistent depilation with the forceps. The sooner this is resorted to the better.

Case for Diagnosis: Lupus Erythematosus or Vulgaris? Presented by Dr. Fox.

Dr. Fox said that the patient had first appeared in the clinic that afternoon, and as Dr. Dade and Dr. Jackson both saw him, and none of them felt very certain as to just what to call the condition, he had brought the patient around to get the opinion of the society. The man was forty-nine years of age, a Chinaman, and claimed to have had the affection for four years.

Dr. WHITEHOUSE said that he would be inclined to regard it as a case of lupus vulgaris. The scars are too deep and puckered to warrant the diagnosis of lupus erythematosus. It is not at all uncommon to see cases of lupus vulgaris developing from tubercular glands of the neck; he could recall several such cases. In this case it evidently began rather late in life, but that does not militate against the diagnosis.

Dr. FORDYCE said that he agreed with Dr. Whitehouse. It was unusual to find so much ulceration and scarring in erythematosus lupus. In view of the claims of certain members that the case was one of lupus erythematosus, he should like to examine a piece of excised tissue microscopically and demonstrate the nature of the affection. If the case should prove to be one of lupus erythematosus, it would be of great interest as throwing some light on the nature of the disease. There have been a few cases presented before the society of lupus erythematosus following the breaking down of tuberculous lymph nodes.

Dr. WINFIELD said he thought it was a case of lupus vulgaris.

Dr. JACKSON said he thought it was lupus vulgaris. The ulceration at one part of the patch, and the tuberculous glands in the neck were in favor of the diagnosis. The man was a Chinaman, and we do not know much about lupus in Chinamen. It might spread more rapidly than on a white man. He would have a small piece cut out and examined.

Dr. KLOTZ agreed with the diagnosis of lupus vulgaris, though some parts did look very much like lupus erythematosus. He was not aware whether in literature the simultaneous occurrence of these two diseases on the same individual had been reported. Years ago he had had under observation in the German Dispensary, a young man with an affection of the face exactly in the butterfly shape, which presented the appearance of lupus erythematosus, but after some time minute nodules were discovered on the borders of the lesion, on the *ala nasi*. The case impressed him as a combination of the two lupus forms. Considering that by many authors lupus erythematosus had been brought in close

connection with tuberculous infection, the co-existence of both diseases on the same individual does not seem so impossible.

Dr. FORDYCE said that the patient's statement regarding the duration of the affection could not altogether be relied upon. He thought the disease might have existed much longer than the time stated.

Dr. FOX, in closing the discussion, said that he agreed with the diagnosis of lupus vulgaris. He thought the idea that lupus vulgaris always occurs before the age of puberty is a mistake. He had seen a number of cases beginning late in life. In the present case, apart from the glands in the neck—the patch on the cheek is rather large for its age; although lupus vulgaris is a slow growth, in three or four years it may cover three or four square inches. The fact that there are no outlying nodules does not disprove the diagnosis. We often see patches of crusted lupus which have no outlying nodules. The crusting on the surfaces was the one point that led him to think it lupus vulgaris. Lupus erythematosus would have more of a dry scale and a more worm-eaten condition of the skin, rather than the individual pits seen in this case. He was inclined to think it lupus vulgaris, but would have a microscopical examination made and determine definitely.

Case of Sclerodactylie. Presented by Dr. Fox.

Dr. FOX said that he had first seen this patient some years ago, but that recently she had returned to the hospital for treatment. She has had ulcerations about the malleolus on both feet and at the finger ends, but these have now healed and her fingers which were clubbed seven or eight years ago have improved under massage. At present the hands are in fair condition, though deformed, and the ulceration has healed completely. The same drawn condition of the facial muscles is present, as was noted in a case shown at the last meeting.

Dr. WINFIELD said that he had presented a similar case before the society two years ago. The patient, a woman, had a sclerodactylia and scleroderma of the face and chest, and had shown marked improvement under adrenalin. She had also a peculiar color, almost like Addison's disease. As long as she continued to take the desiccated adrenalin gland three times a day the scleroderma improved. Discontinuing its use, she rapidly grew worse, and died last Saturday with some kidney complication. An autopsy was performed, and her kidney and spleen were affected. She had enlarged kidney, the adrenals were cystic, and the spleen was cirrhotic, hard, and white. A full report of the case would be published.

Dr. FORDYCE said that the case was similar to one that he had recently shown before the society. These cases form a distinct type in their mode of development and prognosis. In the effect upon the extremities they bear a close resemblance to Raynaud's disease.

Dr. SHERWELL referring to the case cited by Dr. Winfield, stated that arterio-sclerosis was probably present any way, but in the case he reported as benefited by use of adrenalin, it would seem that the use of adrenalin would contract the vessels still more. At first blush it would not seem rationalistic treatment.

Dr. WINFIELD replied that the adrenalin was used on account of the bronzing of the skin, and the patient improved while taking the remedy.

Dr. WHITEHOUSE inquired whether any of the gentlemen present had tried to treat these cases with nitro-glycerine which had been used by Dr. Bulkley with so much success. These cases come to us frequently and we seem unable to do anything for them. The nitro-glycerine treatment seemed rational, and if he had another case of the kind he intended to try it and see what it would do.

Dr. Fox said that this patient was in the hospital two or three years ago, and simply had good nursing—good nourishment, massage, and applications to the lesions, and she gradually improved. He did not remember having given her any special treatment. He would have been very glad to try the nitro-glycerine or anything that promised relief. She is in a better condition now than when she was photographed eight or ten years ago. Most of these cases, however, are to be separated from the ordinary scleroderma and considered by themselves, and he doubted whether any brilliant therapeutic results could be obtained.

Case of Lupus. Presented by Dr. Fox.

Dr. Fox said that this patient had been brought from the hospital to-night by another patient already shown to the society, who had lupus which had been treated by a plastic operation. There were many telangiectases here and there which have been treated by scarification and electrolysis, and there were still some small foci of lupus remaining. The X-ray treatment in this case has been kept up for over a year.

Case of Nail Disease. (Parasitic) Presented by Dr. Fox.

Dr. Fox said that this was another case which appeared in the clinic to-day, and that he had brought the patient to the society hoping that some of the members might be able to make a more accurate diagnosis of the case. The patient had no indications of specific disease, eczema, or psoriasis. The patient said that she was one of twins, had grown up healthy, and worked at home. The trouble started on the right side.

Dr. WHITEHOUSE said that he thought this was a very good diagnosis. Certainly there was nothing typical of any special disease in these cases. We all know how difficult it is to differentiate psoriasis, syphilis, or parasitic disease solely from the condition of the nails. Many of them are simply due to malnutrition, and this patient seemed to come under this category. It appeared to be a case of nutritive disturbance affecting the nails. Most of the cases of ring-worm that he had seen had thicker nails, although they begin at the side as this does; but these are thin, spoon-shaped, and quite pitted. He had seen such patients get well under general tonics and building up treatment.

Dr. SHERWELL said he could not, and doubted if anyone could, make an absolute diagnosis of the case without microscopic examination. He always acted in these cases on empirical methods, putting the patient on antisyphilitic treatment, locally, scraping the nails, etc. If parasitic, the treatment would be equally effective. He had heard it stated before in this society—he thought by Dr. Taylor, that when the side of the nail was primarily and particularly affected, the condition was characteristic and almost pathognomic.

Dr. WINFIELD said that the question of giving antisyphilitic treatment was really simply improving the nutrition of the patient. These cases of spoon-shaped nails usually mean malnutrition, and the patients needed toning up.

Dr. KLOTZ said that syphilitic lesions of the nails hardly ever occur without some changes in the adjoining soft tissues. Cases like the present one seemed to him to be merely atrophic conditions of the nails which might result from different causes. In this patient the anæmic or almost cachectic appearance seemed to point to general malnutrition as the cause, and he would consider iron and arsenic as the most valuable remedies under these circumstances.

Dr. JACKSON said that when he had seen the case at the Vanderbilt Clinic in the afternoon, he thought it was neither syphilitic nor cachectic, but parasitic.

The way in which each nail was invaded from the side, and the absence of any marked inflammatory reaction about the nails, suggested this. He had Dr. Rainforth, one of the assistants at the clinic, examine scrapings from the nail, and Dr. Fox would announce the result.

Dr. Fox said that he had shown this case as one of nail disease, and he did not know at first just how to diagnose it. He was not sure whether he was glad or sorry that none of the gentlemen present seemed to know more about the matter than himself. He felt, however, that we ought to know more about the etiology of nail diseases. It was important that we should be able to decide whether a case of onychia is specific or non-specific. It is certainly a most practical question. Another practical question is whether or not a nail disease is parasitic or non-parasitic. Dr. Jackson says that an assistant in the clinic with a good deal of experience has examined this case and pronounced it to be ringworm. Dr. Jackson had examined the case more carefully than himself, and noted the important fact that all of these nails were affected not in the center with little pits or little discolored spots, but from the side—which would be a point in favor of parasitic disease. It was singular how many psoriatic patients have trouble with the nails. At one time he had thought he could distinguish psoriasis of the nails from other dystrophy, but he had seen all sorts of clinical pictures in different cases of psoriasis, and was often greatly perplexed.

Dr. MEWBORN asked if any member had had any experience with the X-ray in such cases to cause a shedding of the nail?

Dr. Fox thought that this would be a good case for trial, for even when the diagnosis of nail disease was established, no advance was made in solving the question of how to treat the case, and it seemed to him that a parasitic nail disease should be curable.

Dr. Sherwell showed a striking picture which he had received from an army surgeon lately on duty in the Philippines—multiple fibroma, innumerable tumors, great disfigurement, and entailed loss of function of limbs.

Dr. H. H. WHITEHOUSE,
Secretary.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the society was held Tuesday evening, November 20th, 1906, in the amphitheater of the Polyclinic Hospital, 18th and Lombard Streets, Philadelphia, Dr. M. B. Hartzell, presiding.

A case of hypertrophic lichen planus was shown by Dr. Stelwagon. The patient was a young woman about twenty-five years of age, and gave a history of having had the condition for a period of about twenty years. The lesions were most marked upon the arms and legs. Upon the left leg, especially, there were noticed pea- to coin-sized papular and maculo-papular lesions, which, according to her statement, had previously been vesicular and pustular. The itching was considerable. The condition was worse in warm weather. The history showed that the lesions were at times produced by scratching, and also that they were prone to disappear for a year or so and return on the same site. Some of the lesions resembled those of lichen obtusus. The condition bore no rela-

tion to vaccination. The possibility of tuberculosis of the skin and also of acne varioliformis had been entertained.

A case of multiple benign cystic epithelioma was presented by Dr. M. B. Hartzell. The patient was a young woman who had been the subject of this condition for a period of a year or more. The disease was located on the face and showed various stages of the degenerative process. Some of the lesions were merely small patches of degenerative seborrhea, others circumscribed infiltrations, and still others had gone on to ulceration. One lesion was demonstrated on the inner surface of the eyelid. There were also two or three small pedunculated moles on the face. The patient had been subjected to X-ray treatment for a period extending over several months, and as a result the disease had been almost entirely effaced. Dr. Hartzell exhibited photographs showing the condition of the patient when she first came under his observation, and the changes noted at more recent dates. Sections had been removed for histologic study and served to confirm the clinical diagnosis. From a careful study of these sections and others, Hartzell is inclined to think that the condition has its origin in the hair-follicle.

A case of epithelioma was brought before the society by Dr. Schamberg. The patient was a woman about thirty years of age, and gave a history of having had the condition for a period of six years. The point of interest in connection with this case was that she had been exposed to the action of radium of one million activity, German standard, with a very good result, the growth having entirely disappeared. The treatment covered about 19 exposures, varying in duration from $\frac{1}{2}$ to $1\frac{1}{2}$ hours.

A case of molluscum fibrosum was exhibited by Dr. Van Harlingen. The patient was a middle-aged woman who had had the condition for about three years. The affection was more or less generalized. A few of the lesions were seen on the palms of the hands. Attention was called to the peculiar physiognomy common to these cases. The electro-cautery had been employed in this case with success. Dr. Stelwagon remarked that in some instances it had been observed that prolonged arsenical treatment, internally, had caused this disappearance of the lesions.

A case of sycosis vulgaris of the upper lip, in which the X-ray had been employed, was presented by Dr. Schamberg. Two years previously the patient had been subjected to six exposures of the X-ray, as the result of which a dermatitis was produced. Following this depilation occurred, and in consequence, scarring was produced in the diseased area. Three weeks ago a recurrence took place, but only in the follicles that had previously escaped the effect of the X-ray. Schamberg also called atten-

tion to the frequency with which marginal blepharitis was associated with sycosis vulgaris.

A case of dystrophia unguis was shown by Dr. Knowles. The patient was a negress and the condition had existed for about two years, and was steadily growing worse. Both hands were affected. The changes in the nails were very well marked. Dr. Hartzell was of the opinion that these cases were to be regarded as the consequences of an eczematous condition of the skin at the root of the nails. Schamberg suggested the term *matricitis* for this affection.

A case of chancre of the upper lip was brought before the society by Dr. Schamberg. The lesion was first noticed about five weeks previously. The patient was a young man, thirty-seven years of age. Examination of the body showed the presence of a roseola. The glands at the angle of the jaw were enlarged.

A case of chancre occurring on parts other than the genitals, was shown by Dr. Stelwagon. The patient was a negro, about thirty-five years of age, and remembered having had the condition for a period of approximately four weeks. The lesion was coin-sized and situated on the left side of the neck. The induration was quite marked. Glandular enlargement was also present. The possibility of deep-seated tinea was entertained.

A case of papulo-pustular syphilide was exhibited by Dr. Schamberg. The patient was a man forty years of age, and stated that the condition had made its appearance first shortly after an attack of typhoid fever. Examination at this time showed typical lesions on the back and portions of the extremities. The forearms and parts of the chest were distinctly eczematous. Itching was present in rather marked degree. There was also some alopecia. The involvement of the follicles was a prominent feature of the case.

A case of markedly circumscribed sycosis vulgaris of the upper lip was shown by Dr. Knowles. The patient was a man, forty years of age, and the duration of the affection was four months. The case had undergone many changes since first observed. Its circumscription was now its most prominent feature.

A case of leucoplakia was presented by Dr. Schamberg, occurring in a young man twenty-eight years of age. The disease was situated on the tongue, and consisted of three patches of varying sizes. One of the smaller patches had been excised and examined microscopically. A photomicrograph of the section was shown. The patient acknowledged smoking to a greater or less extent.

A case of papulo-tubercular syphilide, in which the lesions appeared decidedly eczematous, was brought to the attention of the society by Dr. Stelwagon. The diseased areas were very red and apparently very much inflamed, but a careful examination of the lesions demonstrated their true nature.

A case of morphea was shown by Dr. Hartzell, occurring in a young man about twenty-five years of age. The disease was located on the left side of the neck and had existed for twelve years. It was rather diffuse and was disposed to spread. There were numerous white areas between which were reddened and hyperæmic intervals. The follicles were atrophic in the whitish areas.

SAMUEL HORTON BROWN, M. D.,
Reporter.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

December 18th, 1906.

The regular monthly meeting of the Philadelphia Dermatological Society was held Tuesday evening, December 18, 1906, in the amphitheater of Medico-Chirurgical Hospital, 17th and Cherry Sts., at 8:30 o'clock, Dr. M. B. Hartzell, presiding.

A case of probable lupus erythematosus of the mucous membrane of the mouth and lips was shown by Dr. Stelwagon. The patient was a young man, about twenty-five years of age, and gave a history of having had the condition for approximately one year. The lesions were situated upon the vermilion border of the lower lip, and upon the mucous membrane on either side of the bicuspid teeth. The affected surface was very much reddened and surmounted with a grayish-white covering.

A case for diagnosis was brought before the society by Dr. Gans. The patient was a negro, thirty-five years of age, and an inmate of the Philadelphia Hospital. The condition, of which he was the subject, had existed for a period of two years or more. Baldness was present on the scalp in large areas and these areas were also seen to be made up of rather superficial scar tissue. Upon the neck and back were to be seen keloidal whitish scars, and nut-sized granulomatous lesions. According to the history, as given by those who had observed him, the lesions followed a definite course in every instance, beginning as flat vesico-pustules which were later replaced by granulomatous tissue, and still later by superficial scarring. The body also seemed to be the seat of an eruption resembling tinea versicolor. Syphilis was not considered a factor to be reckoned with by any of the members. The possibility of cutaneous tuberculosis was entertained somewhat, but no definite conclusion was reached as to the nature of the condition.

A case of grouped molluscum contagiosum was exhibited by Dr. Davis. The patient was a young man, eighteen years old, and had had the condition for four months. The lesions were flattened and grouped together on the back. The history was negative as regards contagion.

A case of recurrent herpes, previously shown, was again brought to the attention of the society by Dr. Pfahler, in order to demonstrate the benefits produced in this particular case by exposure to the X-ray. The condition had lasted altogether at least three years, and the recurrences had followed so closely upon each other that the condition was almost continuous. After eight exposures the affection disappeared entirely, but had recently returned after a period of freedom extending over nine months.

A case of papulo-pustular syphilis in a male negro, 10 years old, was presented by Dr. Schamberg. The duration was five weeks. The lesions were widely distributed and showed the polymorphism characteristic of the disease. The grouping of the lesions common to this type of the affection was also present. There was no visible initial lesion. The case was exhibited in order to demonstrate the ease with which cases of this character might be confused with certain infectious fevers.

A case of probable sarcoma was exhibited by Dr. Pfahler in which an X-ray burn had occurred on the side of the face opposite to the side which had been exposed to the ray. The condition had recurred with amazing rapidity after surgical interference upon two occasions, but had disappeared after nineteen exposures to the X-ray, and had shown no disposition as yet to return. The patient was a man, twenty-two years old, and had been before this society before.

A case of epitheloma was shown by Drs. Gans and Pfahler. The condition was situated upon the face and had existed for about twelve years. The patient was a man, thirty-five years of age. Traumatism was a possible factor in its production.

A case of papular syphilis was exhibited by Dr. Schamberg. The patient was a negress, twenty-eight years old. Upon the face the condition was of the large papular type, while upon the body it was distinctly follicular. The affection resembled variola. Another case of syphilis occurring in a negress was shown by Dr. Schamberg. This patient presented changes in the teeth, such as described by Hutchinson, and also showed evidences of a disappearing early secondary eruption. The possibility of a reinfection was discussed.

SAMUEL HORTON BROWN, M. D.,
Reporter.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

January 15, 1907.

The regular monthly meeting of the Philadelphia Dermatological Society was held in the amphitheater of Jefferson Hospital, Eighth and Sansom Sts., Tuesday evening, January 15, 1907, at 8:30 o'clock, Dr. M. B. Hartzell, presiding.

A case for diagnosis was shown by Dr. Hartzell, occurring in a woman about twenty-eight years of age, who gave a history of the affection having lasted for a period of two years. The condition began as variously sized, shaped, and distributed erythematous patches, which subsided after an indefinite space of time, under very mild treatment. After an interval of freedom from the disease, it again manifested itself as a generalized erythematous eczema, and was considered as such by the physician in attendance. This attack likewise subsided under mild applications. The present attack began after exposure to cold. The patient is inclined to attribute each recurrence to exposure to cold. At present the disease appears as reddish patches, varying in size and shape, occurring upon the entire body, face, neck, and extremities, which patches are very slightly scaly. The patches have maintained their individuality throughout the present attack. Stimulating applications have been found to have a decidedly irritating effect upon the condition. Dr. Hartzell was inclined to regard the affection as being an example of Brocq's parapsoriasis, although in many of its features it suggested the possibility of seborrhoic eczema.

A case of dermatitis herpetiformis, occurring in a girl, six years of age, was shown by Dr. F. C. Knowles. The condition began three months previously, and sufficiently recent after vaccination (three weeks) that the parents were disposed to believe there was some relationship between the conditions. The eruption began at this time upon the lower part of the legs as erythematous patches, to which were soon added vesicular and bullous lesions, occurring in groups. These manifestations of the disease soon dried, forming crusts which, falling off, left behind areas of purplish pigmentation which tended to persist for quite a while. This first attack lasted six weeks. After a period of two weeks' freedom from the disease, the condition again manifested itself, vesicles and blebs appearing upon various parts of the body and face. Some of the lesions were observed to develop abruptly from apparently sound skin, but most of them arose from erythematous areas. At the time of presentation, the vesicles and blebs were present upon the inner sides of the thighs, vulva, buttocks, gluteal region, and upon the upper arms, forearms, and legs. The lesions occurred in groups and showed a tendency to a gyrate arrangement. The condition was essentially bullous and displayed no multiform character. Marked improvement was noted after the administration of arsenic.

A case of syphilis of unusual character was brought before the society by Dr. Hartzell. The patient was a girl, nineteen years of age, Russian by birth, who had first shown evidences of this condition when she was about twelve years old. She was then seen by one of the other members present, who placed her upon treatment for several ulcerative lesions upon the legs which were then regarded as manifestations of erythema induratum, or similar scrofulous process. The case was obscure from the beginning, and at one time in the course of the treatment, the use of some preparation containing potassium iodid was commenced, but was immediately discontinued owing to the violent reaction that took place from its administration. This reaction, for the most part, consisted of an angioneurotic edema of one eyelid and adjacent structures, together with the coryza so common to these cases. After a period of comparative good health, the patient passed from the observation of this member, and later sought advice from several other physicians. The iodids were again administered, but with like effect. Eventually she presented herself at a prominent eye-clinic, with an orbital growth which was considered as malignant in nature and recorded accordingly. The possibility that this orbital growth was a part of the iodism was entertained by the society. At a very much later period, she applied at the University Hospital with lesions that seemed frankly syphilitic. Scarring was present upon nearly all parts of the body. Only a few ulcerative lesions were present at this time. The patient states that the disease has been stationary for the last two years. The patient's extensive hospital experience had rendered her more or less intractable, so that it was impossible to follow the course of the condition for any length of time.

A case of congenital syphilis in which the patient was the second baby in this family to be so affected was exhibited by Dr. Knowles. Apart from this feature, the case was typical in every detail.

A case of generalized Darier's disease, previously shown, was brought to the attention of the society by Dr. Stout, in order that the marked improvement that had occurred from exposure to the X-ray might be noted. Curiously to state, the improvement had taken place not only in the regions exposed, but also in remote areas. Thirty exposures in all had been made.

A case for diagnosis was shown by Dr. Stelwagon. The patient was a man, about forty years of age, an Italian, and stated that the condition had lasted altogether about three years. It was first treated in Naples and was designated by one of his Italian physicians as elephantiasis, according to his statement. The nose, cheeks, and upper lip were very much reddened and thickened, at first suggesting erysipelas. The thickening, however, was firm and resistant. The patient said that the redness and thickening were more or less permanent, and that at times were more marked than at the time of the present observation.

A case of probable psoriatic eczema was also exhibited by Dr. Stelwagon. In this case the patient was a middle-aged man, who had complained of the affection for a period of about one year. The condition seemed to be localized to the legs and was manifested by gyrate, reddish, maculo-papular lesions. The scaling was scant, but would become profuse were the condition to be neglected for a few days. The condition also resembled very closely a fading psoriasis, but presented no distinctive features of this disease.

A case of pityriasis rosea in a negress was presented by Dr. Schamberg. The condition was only of three days' duration, during which period the patient had made some application to the affected areas that had caused an alteration in their appearance. On the chest and back the pityriasis rosea was marked, but upon the hands and wrists vesicles were present which seemed to indicate an additional dermatitis. The admixture of the two diseases was at first sight somewhat confusing.

A case of acne keloid was shown by Dr. Davis. The patient was a negro, twenty-eight years of age, and had had the condition for an indefinite period. The affection was situated upon the back of the neck and marked by fibrous tumors and very minute abscesses. There was also numerous inflamed follicles and œdema of the scalp.

A photograph of a case of facial necrosis following injury was shown by Dr. Davis. The patient, a man, was a worker in a morocco factory, but had nothing to do directly with the handling of the hides. In the course of his daily routine, he was struck upon the left side of the face in front of the ear by some of the machinery, in which situation, within a few hours, he developed a violent inflammation. This inflammation progressed rapidly, and within three days had produced a central necrotic area. There was a marked elevation of temperature during the first few days of the condition, but this soon subsided. At no time was there any pain. The condition was at first thought to be anthrax, but a positive diagnosis was held in reserve. It underwent resolution under boric acid application and this benign course was taken to be against the possibility of anthrax. Cultures were made which showed the presence of organisms resembling bacillus subtilis. Inoculations had not been made owing to the unexpected illness of the bacteriologist having this in hand.

A case was shown for diagnosis by Dr. Schamberg, suggesting parakeratosis variegata. The condition occurred in a robust man, thirty-eight years of age, and had existed about four or five months. It consisted of circular patches of a more or less dark color covered with slight scaling. Some of the patches, especially those upon the trunk, suggested chrysarobin stains. The patches were distinctly hypersensitive. In some the parakeratosis element was well-marked. In others, there was an apparent peripheral elevation and central depression. In many there was a distinct vascular element.

SAMUEL HORTON BROWN, M. D.,

Reporter.

REVIEW
of
DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

INFLAMMATIONS.

By HARVEY P. TOWLE, M. D., Boston.

Erythema Autumnale; Harvest Rash or Prurigo du Rouget. THRESH.
(*Lancet*, Nov. 10, 1906.)

During the course of an investigation of another subject, Thresh discovered an affection which was very common among the agricultural laborers of Essex. The eruption appeared most frequently upon the legs and in the autumn season. As harvest bugs are most prevalent at this season, the affection was commonly attributed to them. Investigation, however, showed the true cause to be a parasite upon the harvest bug, the larva of a trombidium. This insect, according to Murray, is most common near the sea-shore where the soil is light. Beginning to appear in July, it is very troublesome by August. The larvæ breed upon plants and are thence transferred to man or to animals. They attack the legs by preference, but may travel upwards so that all parts of the body become involved, especially those parts where the skin is thinnest. Attaching themselves to the downy hairs by their claws, they insert their suckers into the epidermis. As a result, most intense itching is produced, while the skin becomes red and even violet around the points attacked. These points are always discrete and usually show an appreciable central projection.

Erytheme Miliaire Leucogenique Prurigineux Chronique. MILIAN.
(*Ann. de Derm. et Syph.*, 1906, vii., p. 48.)

Milian reports, under this long title, a case which bore some resemblance to urticaria pigmentosa. The patient was a man of forty-eight, who had had a typical urticaria for six years. During the past six weeks, the urticarial plaques had become so much rarer that there were only one or two a fortnight. In their stead an eruption had appeared which might have escaped notice at first sight, located on the trunk, especially the flanks, and on the thighs and extremities, but chiefly on the buttocks. Close inspection showed this eruption to be made up of a series of small, red spots of the size of the head of a pin, round, projecting slightly, and surrounded by a zone of white. Where the red had disappeared there remained only a round, post-eruptive, non-cicatricial, white macule. The lesions itched insupportably. Cold especially provoked the eruption which disappeared in the warmth within an hour. Irritation of

the white macules produced a very slight elevation. In the discussion which followed, Darier suggested that as the elements became papular when scratched, it would be well to exclude an abnormal form of urticaria pigmentosa by biopsy.

Herpes Zoster Recidivus. Zoster Dorso-Abdominalis in loco. VÖRNER.
(*Archiv f. Derm. u. Syph.*, lxxviii., p. 105.)

Vörner showed in an article on recurrent zoster, published last year, that, while recurrence was very uncommon anywhere, it was especially rare upon the body. He found that the disease recurred not only in the ordinary vesicular form of zoster, but also in an erythematous form and, in one case, as vegetating plaques and that the recurrent eruption was not always of the same type as the original. He quotes Leudet to the effect that the recurrence may be on the site of the previous eruption, on the territory of the corresponding nerve of the opposite side, or in another skin segment. Leudet also asserts that there is a form of chronic recurring zoster in which the second eruption appears before the first has disappeared. Vörner then reports the case of a man who twenty years ago had a herpes zoster gangrenosus which involved the eighth and ninth dorsal nerves. This diagnosis was confirmed by the physician who attended at that time. The scars of this eruption were still visible. The patient now shows a zoster of the same type and on the same place as the original attack of twenty years before, occurring not only upon the sound skin not previously involved, but also upon the scars.

Oedema (Quincke) Acute Circumscribed, combined with Erythromelalgia. SCHLESINGER. (*Med. klin. Berl.*, 1906, ii., 94.)

Schlesinger's case, which the writer says is the first reported of the association of these two affections, may throw some light upon the etiology of erythromelalgia. The patient was a man of thirty-eight, a wine salesman. He had syphilis when twenty-eight, for which he took two "schmierkuren." Married seven years, no children. Patient has averaged six to seven litres of beer and ten schnaps daily. For one year he has suffered from sudden, recurrent swellings of the body surface, most frequently of the eyelids and scrotum. At first recurring every two or three days, they later became less frequent after limiting the amount of alcohol and taking quinine. After a five hour walk at the end of September of last year, and the consumption of much alcohol, the patient felt on the following day, pulsating, shooting pains in the toes of both feet, which grew so severe that he could not walk. A sharply defined area of bluish-redness, over which the temperature was increased, soon appeared on the terminal phalanges, affecting the balls of the toes especially. At the same time a row of mark-sized wheals appeared on the inner surfaces of both lower legs along the course of the saphenous nerves, and with them marked oedema of the scrotum. The oedematous lesions disappeared in the course of two hours. Sensation to touch, pain and heat

were almost completely lost over the red areas on the toes, but the sensation to cold was not altered. The achilles and toe reflexes were absent; the knee-jerk diminished. The symptoms in the toes disappeared in a week under quinine and local cold, but the sensations and reflexes remained diminished. Schlesinger regards both processes as merely different expressions of the same cause, *i. e.*, alcohol, the œdema resulting from an inflammatory process along the course of the sensory and trophic nerves and the erythromelalgia from neurotic degenerative processes.

Oedema, Acute Circumscribed, of the Skin and Mucous Membranes.

MORICHAU-BEAUCHANT. (*Ann. de Derm.*, 1906, vii., p. 22.)

The authors divide the acute circumscribed œdemas into three groups, arthritic, peliotic and the œdema of Quincke, which have in addition to their especial characteristics, certain features in common, such as an abrupt onset, limited extent and recurrence.

The arthritic œdemas occur in patients with arthritis in two forms, the one the typical, transient white œdema of all the tissues, the other, an atypical form in which the lesion is limited to the subcutaneous tissues producing small tumors known as arthritic nodules. These nodules vary in size from a lentil to an almond, are multiple, elastic, fairly firm, occasionally tender on pressure, movable under the skin and over the deep tissues. The color of the overlying skin is normal in color. An attempt was made by the writer to excise such a node, but after making an incision in the skin it was found that the tumor had vanished, showing that it was truly an œdema.

Faisans is quoted in regard to the peliotic œdemas to the effect "that the appearance of hemorrhagic spots is habitually accompanied or preceded by subcutaneous œdemas which have an especial aspect, which come suddenly and go as suddenly, which appear on the lower extremities, and are often symmetrical. They remain several hours or days and then, when the purpuric eruption is fully developed, disappear from the extremities to appear on the hands, forearms, or face. Then in successive crops they may appear on first one part and then on another."

Great stress is laid on the point that true Quincke's œdema is accompanied by gastric crises, analogous to those of tabes, with violent pains, incessant vomiting, meteorism and diarrhœa.

These three groups are not sharply differentiated from one another, but often merge. The author believes that gastro-intestinal toxic infection is the underlying cause of them all, and that this fact explains their similarities. He says that the peliotic œdema is caused by an acute infection, while the arthritic and the œdema of Quincke are the result of a chronic infection. Arguing further this theory of gastro-intestinal infection as the cause of the œdemas is said to explain the relationship of "arthritisme" to the etiology for neuro-arthritis, are notoriously prone to vaso-motor disturbances, and are also predisposed to intestinal intoxications. It also explains the connection between the circumscribed œdemas

and urticaria and describes the mechanism of the production better than the old classic theory of an angio-neurosis.

Out of the foregoing facts the author evolves the following theory of the production of the acute circumscribed œdemas. The immediate cause he believes to be the retention of chlorurea in the tissues, by the direct action of abnormal substances formed in the organism. Under the influence of abnormal microbic fermentation, defective elaboration occurs, with a resulting formation of toxalbumens and peptones which, passing into the circulation, act as lymphagogues. Secondary causes intervene to localize the œdema in the places of the least resistance, such as cold and trauma. To explain why the œdema may be white, Heidenheim's theory is accepted which states that the œdema is the result of the active secretion of the vascular endothelium and is in large part entirely independent of vaso-motor phenomena. If the classic theory of a vaso-dilatation is accepted the œdema should be red.

Urticaria. Experimental Study of some Cases of. PARAMORE. (*Brit. J. Derm.*, 1906, pp. 239; 248.)

Paramore's experiments in urticaria receive an added interest when compared with Morichau-Beauchant's investigations as to the origin of the acute circumscribed œdema's (reviewed.) The latter worked on the theory that the primary cause of the œdemas was defective digestion, whereby substances were created which, circulating in the blood, acted as lymphagogues and caused an active endothelial secretion of serum without necessarily any accompanying vaso-motor disturbance. Paramore followed Wright's suggestion made in 1896, that urticaria was a disease of the nature of a serous hæmorrhage, associated with which was a defective coagulability of the blood, due to a diminution of the calcium salts. Wright's method, published in 1905, was used to determine the relation existing between the calcium salts and the coagulability. The calcium content is measured by drawing into a pipette 5 c.c. of fresh blood and 5 c.c. of a solution of ammonium oxalate of various dilutions. If the ammonium oxalate has completely decalcified the blood after the mixture has stood twenty-four hours, no clot forms and the corpuscles sink to the bottom. The calcium content is therefore determined by the relation between the clotting and the strength of the ammonium oxalate solution and is expressed in terms of ammonium oxalate. The coagulation time is determined by exposing a column of blood 5 c.m. in length and equal in volume to 5 c.mm. of mercury to a temperature of 37° C. in a water bath. The tube is removed after an exposure of thirty seconds, and then at intervals of fifteen seconds. The first appearance of fibrin is taken as the coagulation time.

Paramore states that no absolute normal calcium content or coagulation time can be given, but as the calcium content has been found in non-milk drinkers to be 1/1500 oxalate of ammonium, and the coagulation time to be one minute and forty-five seconds, he used these as standards. He

notes in this connection that milk is one of the chief sources of calcium in the diet, and that milk drinkers have an abnormally large lime content and a proportionately accelerated coagulation time.

The seven cases studied were five of urticaria, one of giant urticaria, and one of angio-neurotic œdema. Tests of the blood, made before giving treatment, showed a diminution of the lime salts in the giant urticaria alone, and a delayed coagulability in the angio-neurotic œdema, one urticaria and the angio-neurotic œdema. He then administered calcium chloride by the mouth in dram doses, to increase the calcium content in the blood and to accelerate the coagulation time. In some cases but a single dose was given, in others it was repeated for several days. Repeated tests showed prompt effect. Clinically, all the cases except one showed improvement in the symptoms, and some were cured, some in a few hours and one after ten days. In one case of urticaria the reverse experiment was tried of delaying coagulability. Citric acid (8.) was given three times a day for six days. Under this treatment the urticaria increased. Then the patient took, on his own responsibility, a magnesium mixture to relieve his constipation. The immediate improvement of his urticaria shows that magnesium acts in these cases like calcium which explains its value.

Paramore concludes from his experiments that the calcium factor in the blood is of primary importance, but inasmuch as the majority of the cases with diminished lime content associated with a defective coagulability do not have urticaria, it cannot be always the direct cause. The cases he explains by defective renal action which throws extra strain upon the skin. If the skin can excrete the noxious materials easily and quickly, little harm results. If, on the other hand, the noxious materials are very irritating and not easily thrown off, a serous exudate or wheal is produced, or, if the irritation is moderate, a papule. Therefore in the true decalcification urticaria a cure may be expected to follow the administration of calcium chloride, considerable improvement in the papular urticaria, but in the others there will be no result.

Urticaria, Chronic and Hypothyroidism. LEOPOLD-LEVI and DE ROTHSCHILD. (*Compt. Rend. Soc. de Biol.*, 1906, lxi., 35.)

The authors think that urticaria is not an uncommon expression of hypothyroidism, and represents the cutaneous localization of an acute intoxication. They give an illustrative case of a woman who suffered from successive daily outbreaks of wheals and erythema. She also complained of irregular menstruation, increasing obesity, fatigue and sleepiness. The thyroid was increased in size on the right. Two cachets of thyroid extract were given daily with immediate improvement. The patient stopped treatment after nine days, when all the symptoms returned. She then resumed the thyroid and has taken it irregularly ever since, with the result that there has been no return of the eruption except for a few scattered lesions, especially at the time of the menstrual period.

SYPHILIS OF SKIN AND MUCOUS MEMBRANES.

By WALTER C. KLOTZ, M. D.

Mercurial Elimination in the Urine. *Zur Frage Der Absonderung d. Quecksilbers, etc.* E. WELANDER. (*Archiv f. Derm. and Syph.*, lxxxii., 1906, p. 163.)

The principal object of the above article is apparently to question the results obtained by Burgi after a very searching investigation of this subject, as embodied in his article in the *Archiv* of this year, and which was noted in a former review. Welandér makes the objection in the first place that Burgi's figures of the amounts of mercury found in the urine can only be accepted as approximate ones, owing to the limitations of the methods of analysis employed, that moreover his investigations were carried out in too small a number of cases to allow any such positive deductions. He objects particularly to the findings obtained in the case of Welandér's method of cutaneous application of mercury, as the mercuriolint aprons do not express as efficient a means of employing this mode of treatment, as do the use of the "Welandér" bags which are more frequently renewed by the patient, and in consequence of which, greater quantities of mercury are absorbed. In the course of a lengthy hair-splitting discussion, he endeavors to show that Burgi's conclusions as to the absorption of mercury and its elimination in the urine when taken by mouth cannot be generally accepted, that he does not agree with him that in general the internal medication is of as great a value as his (Burgi's) results would indicate. Regarding subcutaneous and intravenous injections of soluble mercurial salts, he does not offer any further discussion, but maintains that Burgi's figures as to the degree or amount absorption after intramuscular injections of insoluble salts of mercury, are erroneous, as they do not agree with his own results obtained after long and careful investigations for twenty years. The claim of Burgi that all insoluble salts show a large elimination of mercury immediately after the injection, and that after that there is a gradual decrease until after the next injection, applies only to the salicylate of mercury, for according to his own investigations (Welandér's), the other insoluble preparations show a relatively slow but increasing absorption as expressed by the amounts eliminated in the urine.

In order to determine the cause of this marked difference in the action of the salicylate of mercury, he has instituted a number of chemical experiments, according to which it would seem that the salicylate is much more soluble in albuminous urine, acid urine, ascites fluid and serum, than are either calomel, mercuriol, or thymolacetate of mercury.

In conclusion, he reiterates the views expressed in his handbook on the treatment of venereal diseases: that where mercury is given by mouth, the amount absorbed remains very uncertain, the amount of mercury remaining in the system for any length of time depending upon the

amount absorbed. That the injections of soluble salts (corrosive sublimate being the best) produces a rapid and efficient degree of absorption, with considerable cumulative effect. In regard to the insoluble salts, he places the salicylate in a class by itself. Injections of thymolacetate and calomel produce slow absorption with rather decided action and with long continued cumulative effect. With injections of grey oil and mercuriol there is slow absorption and long cumulative effect.

Finally, the author emphasizes the importance of further researches in this field of work, for while he has undertaken the task of criticizing Burgi's conclusions, he admits that he (Welander) has still a very small amount of material from which to make deductions.

Syphilis of the Throat. E. HARRISON GRIFFIN. (*Am. Journ. Derm.*, x., 1906, No. 10.)

In the above article the author makes a plea for a more thorough study of syphilis of the mucous membranes. He finds that the subject is very superficially taught in most medical schools, that consequently in hospital and dispensary work it receives but little consideration. Many cases of syphilis of the mouth and throat escape notice or are incorrectly diagnosed. At the same time he points out the error of still considering syphilis a venereal disease, any more than tuberculosis, for while many cases are acquired sexually, a great many patients acquire the disease innocently. This is particularly true of primary lesions of the lips, tongue and fauces (tonsils), and he cites a number of cases coming to his knowledge where infection took place accidentally. Taking up the clinical aspect of the subject, he describes a number of his cases in which affections of the throat or mouth were long considered tubercular and ineffectually treated as such, or where under a mistaken diagnosis of carcinoma, an operation had been contemplated, and where after appropriate antisyphilitic treatment had been instituted, speedy resolution took place. He has encountered a number of cases in which there was a distinct intolerance to mercury, and where the affection of the mucous membrane presented a most obstinate affection, persisting long after any cutaneous or other signs of syphilis had ceased to appear.

Syphilitic Leucoderma, Case of. *Ein seltener Fall von Leucodermie Syphiliticum.* L. LOEW. (*Archiv f. Derm. u. Syph.*, lxxxii., 1906, p. 241.)

The case described by Loew is of interest on account of the localization of syphilitic pigmentary changes in the skin. The patient gave a history of having been infected about five years before, but had paid no attention to her symptoms, or received any treatment until the eruption appeared on the face. On examination there was found, besides a number of papular lesions of the face and a faint leucoderma of the neck, and along the waist line a marked pigmentary change affecting the skin of the external genitalia, both inguinal regions, and the upper portions of the

thigh, the whole having the outline of a butterfly. Two intensely pigmented lines surrounded the labia and extended upward and downward toward the mons veneris and the perineum respectively. On either side adjoining this area of hyperpigmentation there was an elongated area of very white skin extending well into the region of the thigh and inguinal region on both sides, showing numerous festoon and club shaped processes of whitened skin beyond the actual boundaries of the principal area, which in its turn was marked by numerous islets of excessively pigmented skin. The author draws attention to the fact that in 370 cases of syphilitic leucoderma collected by Neumann, only one case showed the lesion in the lower abdominal region, two cases the region of the thigh, and in not one were the female genitals affected.

Serum Therapy in Syphilis—Clinical Study. RISSO and CEPOLLINA.
(*Arch. f. Derm. u. Syph.* LXXIX, 1906, p. 55.)

The authors set out with the premise that most attempts to treat syphilis with animal serums have produced some results, and have during two years carried out a series of experiments with a serum prepared by themselves from the blood of dogs, asses, and goats, by injecting into these animals subcutaneously and intraperitoneally the blood of patients in the florid stage of secondary syphilis. These injections are made at intervals of five or six days, and repeated three or four times. The dose of the injection being one cm. In order to increase the tissue reaction, the cellular elements are combined with the serum in the form of an emulsion; this is not expected to increase the specific value of the serum.

Thirty-four cases were treated with this serum. For convenience these cases are divided into two series. The first includes 16 cases of secondary and tertiary syphilis. These were all treated with the dog serum to which red blood cells had been added. The second series includes 18 cases of secondary and tertiary syphilis and parasyphilitic manifestations. While the records of these cases would show that in most instances the lesions would disappear when the serum treatment was persisted in, there were a number of cases in which it did not produce any results at all, and in which mercurial treatment had to be resorted to. In other cases again the serum treatment would bring about a disappearance of the symptoms, but recurrences would be noted after longer or shorter intervals. Taking the whole series of cases, there were really only three that were actually cured as far as the occurrences of symptoms were concerned. It would be difficult therefore for an unprejudiced observer to find that the results of the serum treatment were in any way better than those usually obtained by the average mercurial treatment; in fact, the improvement in many cases was so slow as to lead one to believe that the same results would be obtained without any specific treatment at all, simply by the improvement of general hygiene.

MALIGNANT NEW GROWTHS.

By ELIZABETH JAGLE, M. D., New York.

Cancer of the Tongue, Very early conditions of. HENRY T. BUTLIN.
(*Brit. Med. Jour.*, 1906, p. 1201.)

In this article the author calls attention to the diagnosis of very early malignant disease of the tongue. He apportions three stages to the development of the large majority of these cases. 1. Predisposing conditions, such as leucoplakia, ichthyosis, chronic superficial glossitis, which may exist for many years without the occurrence of cancer, which undoubtedly render the individual much more liable to it than are those in whom the tongue is healthy. 2. Precancerous conditions, such as warty growths, thick plaques, sore places which are not actually cancerous, but which inevitably proceed to cancer unless completely removed or destroyed. 3. Actual cancer.

In furnishing early conditions of cancer of the tongue for the Imperial Cancer Research, several interesting cases came to his attention. Case O, a lady, who for years had suffered from soreness of the tongue. She had a chronic superficial glossitis with areas of thin leucoplakia. There was also a small plaque to the left of the dorsum, which was smooth, red, glossy and firm. It was diagnosed as precancerous, and all of the diseased surface removed, but microscopically, it was found to be a small, flat epithelioma.

Case 1, a man of sixty-eight who had a small, white, warty lump on the right border of the tongue. It was firm and might be precancerous or actual cancer. There were also old areas of leucoplakia. Microscopically the disease was epithelioma. The glands were enlarged, but showed no evidences of metastasis.

Case 2 was a man of forty-seven with a superficial ulceration and leucoplakia, the conditions of which were precisely like those of case O. It was a fully developed epithelioma, with no evidence in the glands, although they were enlarged and hard.

Case 3, a man of fifty-six, had had a small wart removed from the left side of his tongue a year previously, and now had a tiny, hard plaque in the midst of a wide area of leucoplakia, which was disposed to be warty. The diseased surface was excised, the material proving to be a young epithelioma.

Case 4 was a man fifty-four years old, who had been treated for superficial glossitis and white areas on the tongue twelve years before, and now developed a flat, very smooth, red plaque, on the left half of the dorsum of the tongue, which was little indurated, slightly raised and overlapping. This likewise proved to be an epithelioma, and although the gland immediately behind the symphysis of the jaw was cancerous to the naked eye, the microscope did not confirm the presence of a metastasis.

Case 5, a man forty-seven, with a small, flat, slightly raised indurated ulcer on the under aspect of the right side of tip of tongue. The surface was red, glazed and painful, and proved to be epitheliomatous.

Case 6, a man of fifty-four, had across the frenum linguae a small nodular, hard, red plaque beginning to ulcerate and to draw in the surrounding tissues. It had only been observed for three weeks, but a year previously he had had a small sore at the same place which was quickly cured. The growth was removed, together with the glands, which were enlarged, but exhibited no cancerous characteristics either macroscopically or microscopically.

At the time of writing none of the patients had a recurrence, excepting case 4, from whom a second epithelioma was removed from the stump of the tongue.

Cancer of the Lower Lip, The Radical Operation for. J. HUTCHINSON, JR. (*Brit. Med. Jour.*, 1906, p. 1216.)

The writer advocates in every case of epithelioma of the lip, cleaning out the contents of the submaxillary triangles and the submental space, at the time of removal of the primary growth. He gives the technic for performing the operation, and adds that in no other region of the body is it so easy to remove all the lymphatic glands at the same time, as the original tumor. The policy of waiting to see if the glands become infected, he does not consider safe and cites cases to substantiate his belief. The risk of the procedure is slight, provided three points are carefully observed—thorough ligation of vessels, drainage of the wounds for a few days, and the protection of the dressings by a waterproof covering from the chance of infection by the saliva, etc. Granting that cancer of the lip is slower to infect the glands than that of the tongue, and therefore less malignant, it is nevertheless responsible for a great many deaths due to involvement of these glands. From statistics it appears that at least 50 per cent. of the cases when they come under the surgeon's care have enlarged lymphatic glands, and in the cases operated on death from recurrence within five years takes place in no less than 64 per cent. As X-rays and radium are quite powerless over glandular deposits of squamous epithelioma, this is another argument in favor of a radical operation. In conclusion, he advises that both submaxillary regions be emptied whenever the primary epithelioma is at or near the middle line of the lip. If placed close to one angle of the mouth, the neck operation may be safely limited to that side, including the submental glands and those over the upper end of the carotid artery and jugular vein.

Carcinoma Cells Within the Muscle Fibres in Carcinomatous Metastases to Voluntary Muscle, Observation on the Growth of. G. HOWARD WHITE. (*Bull. Johns Hopkins Hosp.*, 1906, p. 278.)

The material studied consisted of six cases of carcinoma of the breast, with involvement of the pectoral muscles. Sections through an area of advanced tumor growth showed nests of carcinoma cells usually with a large proportion of fibrous tissue between, and every vestige of the original muscle gone. Sections of a less advanced stage showed a persistence of the arrangement of muscle fibres. Reaction on the part of the

muscle was present in a varying degree of round cell infiltration and a marked interstitial myositis. The cross striation was preserved until the muscle was markedly involved in the tumor growth, the nuclei were increased in number and the sarcoplasm appeared granular, some bundles, especially nearest the epithelial cells, being the seat of a hyalin degeneration. About the margins of the metastases, small masses of carcinoma cells were found lying in the muscle bundles among the muscle fibres. Some were quite round and surrounded by a delicate membrane, and in a position corresponding exactly to the muscle fibre itself. The membrane is really the sarcolemma, for in some cases a little sarcoplasm is left in the form of a crescent on one side of the carcinoma cells or a ring surrounding one or more of them. Bundles could also be seen showing the carcinoma and muscular tissue dove-tailing into one another inside of the sarcolemma. From the study of serial sections, White explains that the carcinoma cells evidently reach the muscle through the lymph vessels supplying it. The cells which proliferate in the lymph vessels secondarily involve the neighboring muscle bundles, destroying in their growth many fibres. In this way it is possible that tumor cells may extend into the broken ends of fibres and develop along the course of the bundle, the sarcolemma acting as a sheath, which is also comparatively resistant and prevents the lateral spread of carcinoma existing within it, while the sarcoplasm, offering a weak resistance, permits its rapid advance in a longitudinal direction. No evidence could be found that carcinoma cells are carried directly to the sarcoplasm through openings normally present in the sarcolemma and communicating with the lymph vessels, or through openings which they themselves have made by destruction of the sarcolemma at one point.

Cancer, On some of the Pseudo-Parasites of. ALBERT S. GRUNBAUM.
(*The Lancet*, 1906, Vol. II., p. 292.)

Pseudo-parasites are roughly classified as resulting from (a) cell degeneration; (b) cell inclusion; (c) cell derivatives; and (d) non-specific organisms.

Cell degeneration may affect either the cytoplasm or the nucleus and nucleolus, or all. Under favorable conditions every stage from mere shrinkage of the cytoplasm from the cell wall to the formation of a hyaline mass of chromatin with a vacuole may be observed.

Cell inclusion: The cytoplasm and chromatin of leucocytes may fuse with the corresponding constituents of cancer cells, and upon this Klebs founded the hypothesis that cancer might arise from the fusion of a leucocyte with an epithelial cell. He also noted their special prevalence in the dividing cells of young tumors, to which cells he thought the leucocytes had provided the stimulus for multiplication. Moore and Walker have observed the included leucocytes dividing. The number of ingested leucocytes is greater where inflammation accompanies the new growth. Their subsequent fate is not easy to trace. Cancer cells are not uncommonly

included within other cancer cells, and both may be in a state of rest or dividing. The process of inclusion explains the large size of some cancer cells and the occurrence of hyperchromatosis. Under cell derivatives are included Plimmer's bodies, which Moore and Walker have shown to correspond to the vesicle of the spermatid archoplasm. These may co-exist with an ordinary nuclear degeneration which may simulate a later stage of the vesicle. If this vesicle be the homologue of a similar one in the spermatid, it seems not unreasonable to assign to such a cell spermatozoal functions, which seem partly to be exercised when one cancer cell is included within another. A non-specific parasite may produce similar appearances, as in the lung of a mouse fed on a blastomycete isolated from a human mammary cancer, the included yeast cells were seen.

Cancer, the Prevention of, regarded as a Practical Question Ripe for Solution. C. B. KEETLEY. (*The Lancet*, 1906, Vol. II., p. 993.)

Keetley lays down the following rules for the prevention of cancer: (1) Sterilize the food, as the majority of cancers attack the alimentary canal, especially where food and feces tarry. Cancers of the biliary and pancreatic passages, as well as those of the uterus, are explicable on ascending currents, and his hypothesis of direct infection does not negative the possibility of infection from the blood. (2) The sufficient and regular toilet and protection of the nipples and genitals. (3) Due care of the mouth and teeth. (4) The careful destruction of dressings of discharging malignant ulcerations. (5) Non-malignant sores and tumors should be cured, and especially not allowed to drift on if chronic. (6) As a matter of course cancerous and doubtful tumors and ulcers should be excised promptly. (7) Abstinence should be practiced from alcohol, tobacco and from foods which leave waste products of which the eliminative organs cannot easily and thoroughly get rid, thereby provoking and sustaining the chronic inflammations and ulcers which so often pave the way for cancer. This rule forbids, among other abuses, excessive meat eating. (8) The avoidance of physical familiarity except with those nearest and dearest to the individual. (9) The exercise of the strictest hygiene in the kitchen, to be applied to servants, utensils and food-stuffs. As all primary carcinomata attack either the alimentary canal, the skin or passages leading into them, milk, owing to its analogy in origin to the secretions of skin glands, is especially to be looked upon with suspicion, and it and its products sterilized.

Epithelioma Developing on an X-ray Scar in a Case of Lupus Vulgaris.

J. M. H. MACLEOD. (*Brit. Journ. Derm.*, 1906, p. 104.)

The patient was a woman of thirty-four, with lupus vulgaris of the face since childhood, for which she had been treated surgically on various occasions and subsequently by X-ray. In June, 1902, she came under the care of the reporter, with a large X-ray cicatrix occupying the right lower half of the face and extending down to the root of the neck. Evidently

the result of a severe X-ray dermatitis, it was smooth and pale in the center, but towards the periphery telangiectatic, with an area of hyperpigmentation beyond it. She still presented a few foci of active lupus on the left cheek beyond the scarred area, and on the back of the neck. These were treated by Finsen light so successfully that in October, 1902, she was discharged. In January, 1904, several of the foci again became active and were subjected to Finsen light. All the time the X-ray cicatrix had apparently remained sound. In the beginning of 1905 she returned and called attention to a reddish-brown patch in the center of the scar at a level where her collar rubbed against her neck. It was the size of a sixpence, slightly indurated, raised and covered by an almost verrucose epidermis. Under the dioscope, there was evidence of a granulomatous infiltration, which was reduced by the light, without affecting the epidermis. She was not seen for several months, and then the epidermis thickening, was more marked and the granuloma had recurred. The light was without benefit, so the lesion was dressed with boracic ointment and watched. It grew steadily and in October was the size of a shilling, with hard-raised borders and a broken down center, with sero-sanguinous discharge. The tissue was removed and showed a rapidly spreading squamous epithelioma. Surrounding the epitheliomatous process was an infiltration resembling more the type met with in scrofuloderma than in lupus vulgaris. MacLeod thinks that in this case the irritant which caused the malignant proliferation of the X-rayed epidermis may have been the growth of the underlying foci of tuberculosis, the friction of the collar, or possibly both combined, and he concludes that cases of this type emphasize the danger of the X-ray treatment of lupus vulgaris, and the necessity of taking every care to avoid a severe reaction.

Malignant Tumors, Protozoa-like Bodies in, etc. *Ueber einen protozoen-ähnlichen Mikroorganismus in malignen Tumoren und durch diesen erzeugte transplantierbare Geschwulstformen beim Tiere.*
Dr. O. SCHMIDT. (*Muench. Med. Wochensch.*, 1906, p. 162.)

Schmidt is of the opinion that he has found in a fungus the intermediate host of a protozoan parasite with which he connects malignant tumor formation. In his earlier contributions from his Cancer Research Laboratory, he gives his technic for demonstrating these organisms. His inability to cultivate them on ordinary culture media convinced him that an intermediate host was involved, which might be either a plant or an insect. He cultivated *Mucor racemosus* from malignant tumors and found certain formations which have nothing to do with the different parts of the fungus, but are apparently identical in every respect with the protozoan parasite of cancer. They are motile and grow by endogenous spore formation. In the parasites observed in malignant tumors the ameboid vegetative forms predominate, while on the fungus the sexual forms prevail and the ameboid forms are rare. Specimens of *Mucor* from cancer always contained these forms, while those from other sources did not.

About one hundred animals were inoculated, six of which developed true tumors, of which five were distinctly malignant. In one of the mice multiple metastases were found. Microscopically the growths appeared identical with the Jensen mouse tumors, their malignancy being confirmed by their transmissibility, transplantation of cells to other individuals of the same species, and by the development of metastases. His experiments convinced him of the specific nature of the parasite, and he next studied the effects of injections of killed pure cultures, with the hope that the specific reaction might be used as a means of curing cancer in the clinic. A number of cases were so treated and he gives the results in five. In healthy individuals there was no reaction, while in those diseased there was both a general and a local one. To overcome the objection that the Mucor itself is responsible for the tumor formation and reaction, he says that it does not grow at the temperature of warm-blooded animals, although the spores may remain in it for months without losing their germinative power.

Sarcoma Idiopathicum Multiplex Haemorrhagicum (Kaposi). S. B. SELHORST and M. E. POLANA. (*Archiv f. Derm. u. Syph.*, 1906, p. 33.)

The case in question was a man of seventy, who up to his fiftieth year had always enjoyed good health. At this time a small spot developed on the dorsum of his left hand; it was purplish, flat and disappeared on pressure. For eighteen years it remained stationary, but during the past two years the disease spread more rapidly, until he had symmetrical tumors on the dorsal surfaces of both hands, varying from a pea- to a hazel-nut in size. The lower extremities were cyanotic with an elephantiasis-like infiltration. On the legs the tumors were more or less disposed along the course of the saphenous veins. The outer border of the foot and the dorsal surfaces of the toes were the seat of verrucous livid tumor masses, in which the original nodules could with difficulty be felt. The rest of the body was free, with the exception of the upper lids, where symmetrical violet pea-sized nodes were located. The histological picture was that of a spindle cell sarcoma. The case is interesting on account of the long interval in which the disease remained stationary. Even after its rapid extension the general condition of the patient remained good. Intramuscular injections of 20 per cent. sol. of atoxylin had not the slightest effect. One spot responded some to X-ray.

Trypsin, The action of, upon the Living Cells of Jensen's Mouse Tumor. J. BEARD. (*Brit. Med. Jour.*, 1906, p. 140.)

In this preliminary note the investigator states that the experiments were undertaken to determine in the first place three points: (1) The action of trypsin upon the living cells of a carcinoma, such as Jensen's mouse tumor. (2) To test the truth of the conclusion advanced by him in 1902, that cancer was an irresponsible trophoblast. (3) The length of treatment and number of injections necessary to destroy the tumor.

Two tumor-mice and a "control mouse" were employed, and the first dose consisted of 2 minims of a $2\frac{1}{2}$ per cent. solution, but this was afterwards diluted to $1\frac{1}{2}$ per cent., for on the day after the first injection both mice were found comatose; due perhaps to autointoxication by some other of the products of the tumor (an alcohol?) as "extracted and digested" by the large dose of trypsin. In the warm incubator they recovered and there was no further trouble from the smaller dosage. After 10 days, when 4 injections had been made, one of the mice was found dead. Post mortem—there appeared no cause for death; but for the presence of the tumor, the mouse was healthy. Microscopically—every single cell of the growth was in degeneration. The somatic tissues (leucocytes and connective tissue cells) were quite normal. The second mouse had in 22 days 9 injections. At the time one of the control mice not living with the trypsin mice died, and it was decided to kill the former. Its tumor was only the size of a lentil, while that of the control mouse was as large as the terminal phalanx of a man's thumb. Microscopically, it was in advanced degeneration, and the author believes that even without further treatment the tumor would in all probability have been absorbed shortly, or its remains cast out. He is certain that the action of trypsin upon the cancer cell is to pull down the cancer albumin—a living substance—and the cancer ferment—malignin—produced by this. Apart from its origin and apart from the parasitic theories proper, the extant theories of the nature of cancer come under three headings—germinal or gametoid, trophoblastic or asexual generation, and embryonic or somatic. The writer adds that besides the confirmation of the conclusion that trypsin is the substance which will destroy the cancer cell with ease and without danger to the individual, these experiments go far to prove that in its nature cancer is neither germinal nor somatic, for trypsin does not in life destroy the soma or sexual individual or its sexual products, while its action is direct and utterly ruinous upon trophoblast or asexual generation.

BULLOUS DISEASES.

By JOHN T. BOWEN, M. D.

Pemphigus, A Case of Chronic Congenital, with Ichthyosis. NICHOLAS and FAVRE. (*Ann. d. Derm. et Syph.*, 1906. p. 705.)

Nicholas and Favre report a case of this affection in a young man who had had the affection since his birth. His skin had always been rough and darker than normal, and at the age of eighteen months, the first bulla appeared, and these had continually reappeared to a greater or less degree, with periods of almost complete remission. During the last four years, for example, he had only had, at rare intervals, isolated bullæ. He considers that the appearance of the bullæ is determined somewhat by a blow or a wound. The affection was hereditary, his grandfather, an aunt and an uncle having had the same trouble. The

limbs were the parts most affected, and here the skin showed a more or less intense ichthyosis. There was a slight, but uniform, thickening of the skin, with exaggeration of the folds and depressions. The skin was rough, and covered with a horny layer of a dark yellow color. The patient was obliged to take frequent baths to prevent this color from becoming more pronounced. All the places which present an ichthyotic appearance, are the seat of a considerable desquamation, and the patient declares that pulling off one of these scales is sufficient to cause the appearance of a bulla. The bullæ are caused by traumatism, but also appear without any apparent cause. They develop rapidly, and attain sometimes a large size. They heal very quickly, never leave scars, and do not give rise to epidermic cysts. They are most numerous in the places where the ichthyotic appearance is most marked. They are accompanied by some painful sensations which, however, are of short duration. The hair in the ichthyotic regions is normal, and there are no lesions of the mucous membranes. The general condition is good, the appetite and thirst seem to be abnormally increased. Nothing abnormal was found in the urine or in the blood.

This is a case of the affection that has been improperly termed bullous ichthyosis. It is a rare form, hereditary, and occurring in the same family.

Epidermolysis Bullosa. *Contribution a l'Etude Clinique et Histopathologique de l'Epidermolyse Bulleuse Dystrophique et Congenitale.* PETRINI-GALATZ. (*Ann. d. Derm. et Syph.*, 1906, p. 766.)

Petrini-Galatz considers that this affection should not be left in the group of pemphigus as has been the case heretofore, especially by the French school, and he therefore reports three cases which he has seen in his own country, with the demand that it be considered an individual affection. After a rapid survey of the literature, he concludes that among the cases of bullous epidermolysis that have been published, some have been characterized by the appearance of bullæ upon the seats of predilection of this affection, that is to say, backs of the hands, elbows, knees and feet, without the coincidence of alterations of the nails, of milia formation, and the atrophy of the skin in these places. The question often arises whether one is authorized in admitting a simple form of epidermolysis bullosa and a dystrophic form. In the three cases cited, the same disturbances in the skin and in the nails occurred, so that the writer considers that the cases which do not present these features should be placed in a separate group of hereditary predisposition to the formation of bullæ.

First case, that of a girl of seven, had had the affection since her birth. At the age of six weeks, bullæ had appeared upon the fingers, toes, and at the end of six months, some small efflorescences upon the gum. From time to time thereafter, the bullæ appeared upon the throat

and back. Three months after the appearance of these bullæ, small elevations (epidermic cysts) appeared on the back of the fingers and on the knees.

The mother states that her first child from its birth had bullæ upon the scalp, and died on the third day. The third and fourth child, who died at three years, and four months, respectively, had bullæ upon their skin almost from their birth. The fifth and sixth children are the subject of the first of the two cases described.

The lymphatic glands are, in places, enlarged. Bacteriological examination of the fluid in the bullæ gave no positive results. The backs of the fingers and toes, the extensor surface of the knees, showed transverse striations of a pale violet color, on which the skin is more crumpled, with a cicatricial appearance due to the frequent recurrence of the lesions. Epidermic cysts are also present in these regions. The nails of both fingers and feet were affected, in some places only a rough remnant of the nail being apparent.

Case 2. This is a sister of the preceding case, five years of age. At six weeks of age, bullæ appeared on the knees, fingers and toes, and the evolution was the same as that of her older sister. At two years of age, there were appearances in the mouth. Afterwards bullæ appeared upon the backs of the fingers, elbows, and upon the feet. The seats of predilection were much the same as in the case of her sister. There were the same epidermic cysts, the same alteration in the nails of the fingers and toes. In this case, also, microscopic examination of the fluid from the bullæ was negative.

The third case was that of a girl of six who had no history of similar trouble in her family. The vesicles and bullæ appeared first at the age of two months, upon the dorsal surfaces of the fingers and toes, afterwards of the knees and elbows, and rarely upon other regions. They appeared at more or less long intervals and, the mother states, frequently followed traumatism. In this case, also, the same places of predilection were affected, and epidermic cysts also were present, together with thickening and dystrophy of the nails.

These observations show a remarkable similarity in these cases of epidermolysis bullosa. The places of predilection are limited to the extensor aspects of the upper and lower limbs, elbows, hands, knees, ankles, and the extensor surfaces of the toes. The skin becomes atrophied over quite a large extent, in some places white scars are formed. Keratosis follows, and finally milia-like bodies, the so-called epidermic cysts. The writer considers that the trophic lesions are one of the most important diagnostic features. He was not able to see that traumatism had any especial influence on the production of the bullæ in these cases, or that any time of year was more favorable to their development than any other. He considers that the nervous system must, in some way, be at fault in the production of this affection, and cites, as somewhat analogous, the trophic disturbances in nerve leprosy. A microscopic examination of

the epidermic cysts showed that they were not produced by a process of exudation or by the retention of any fluid, but that they come from the transformation of the epithelial cells.

Epidermolysis Bullosa Hereditaria, and Its Reaction to the Roentgen Rays. BERGER. (*Archiv f. Derm. u. Syph.*, lxxx., p. 23.)

It has been shown that no bullæ are produced in epidermolysis bullosa hereditaria by the electric current, but only one observation of the effects of the Roentgen rays in this disease is known. In the following case reported by Berger, the experiment was tried with the hope that it might have a curative action on the disease. The patient was a boy of six years, whose father had suffered from a bullous eruption, but of what nature and for how long was unknown; also a sister, who died at seven months, had also a bullous eruption. He had developed bullæ three days after his birth, on the ears, lips, fingers, and heels. The bullæ were filled with clear fluid, and were at first rather small, becoming larger later on. The bullæ on the body also appeared later. When admitted to the hospital, the child presented a crusted eruption about the mouth, with small vesicles interspersed. There were round pigmented spots scattered over the entire body, but there was no atrophy. There were no bullæ upon the trunk, but knees and elbows were the seat of numerous bullæ, both small and large. There was a rachitic deformity of the bones of the lower leg.

In order to test the question of epidermolysis, a starch bandage was applied to the left arm, which soon produced bullæ without inflammatory appearances wherever it came in contact with the skin. In general, rubbing of the skin caused the appearance of bullæ constantly, while pricking or scratching produced none. Bullæ appeared continuously, chiefly on the extremities, the trunk being very little affected. Often-times concentric rings would form on the surface of the bulla by an extension of the bulla toward one side. The bullæ could be enlarged in any direction by mild pressure on any part of their periphery.

Experimentally, the whole right half of the body was exposed to the X-rays in sections. The result was that three days later, numerous bullæ had appeared upon the right half of the body, which did not go beyond the median line, or, in other words, the points of application of the rays. This eruption continued for some time and finally completely healed. It is thus shown that the Roentgen rays have a powerful effect upon the skin in epidermolysis bullosa. It must be the actinic rays themselves that have this influence, since it has been proved that electricity, as well as chemical agents and heat, are insufficient to produce this effect. Therefore, the Roentgen rays act here as a mechanical irritant. He considers that the fact that hyperæmia precedes the formation of the bullæ, proves that the Roentgen rays act primarily on the vessels and not upon the cells. With regard to any permanent effect of the X-rays in this case of epidermolysis bullosa, very few bullæ had appeared on the portion that

had been exposed to the X-rays five months after operation, although the writer admits that it is too soon to form any definite opinion as to a permanent improvement.

Dermatitis Exfoliativa Neonatorum, The Relation of, to Pemphigus Acutus Neonatorum. HEDINGER. (*Archiv f. Derm. u. Syph.*, lxxx., p. 349.)

Ritter advanced as the chief characteristics of his exfoliative dermatitis of the newborn, hyperæmia of the whole surface of the body, without fever and generally without impairment of the general condition, accompanied by swelling and exfoliation of the skin. One-half of his cases died from affections of the internal organs, which were more or less connected with the condition of the skin. The preceding redness of the skin has been advanced as a distinguishing feature of this affection from pemphigus neonatorum; yet a more or less diffuse redness has been described in this disease, also. The formation of bullæ is a point of differential diagnosis, but cannot be considered important since bullæ occur also in dermatitis exfoliativa. It is pointed out that pathological appearances in pemphigus neonatorum present a great similarity to dermatitis exfoliativa, with the exception that in the former there is a vigorous proliferation of the rete.

The case which was observed in Berne was that of an infant who developed a few days after its birth, an erythema covering the whole body. On the seventh day a bulla appeared near the navel which rapidly increased in size. Bullæ also appeared on the legs and upon the fingers. The child was taken to the hospital on the eleventh day, when the skin everywhere was conspicuously red and somewhat exfoliating on the breast. There were also bullæ upon the upper legs from which staphylococcus aureus and albus were cultivated. The temperature was elevated, and there was some diarrhœa. The staphylococcus aureus was also obtained from the blood. On the eighth day of its illness, the child died, after temperature had fallen to subnormal. The autopsy was negative, with the exception of a slight lobular pneumonia. Histologically there was found in the rete a zone of large cells with homogeneous protoplasm, which were regarded as the expression of an œdema in the rete.

While the writer was in doubt as to the diagnosis of dermatitis exfoliativa neonatorum in the above case, a seventeen days' old child from the practice of the same midwife was brought to the hospital, and showed upon entrance a typical picture of a pemphigus neonatorum. In the second week, the infant, without a preceding eruption of bullæ or hyperæmia, presented a very marked exfoliation of the epidermis of the hands and feet. There was only a moderate diarrhœa, and the child recovered in a few days.

The writer concludes that what has been described as dermatitis exfoliativa neonatorum is not so sharply defined that it can be surely separated from the malignant acute pemphigus.

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DIET AS AN ETIOLOGICAL FACTOR IN DISEASES OF THE SKIN.

By HENRY W. STELWAGON, M. D., Philadelphia.

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WHEN first asked to present the introductory paper on the etiological influence of diet in diseases of the skin, it seemed to me that the subject was one that would unfold and write itself without much thought or labor, and with conclusions that might be said to be fairly definite. But on consideration and deliberation, both these beliefs have melted away into almost pure assumptions, and I find that the statements of the etiological rôle of foods alleged or suggested by others, as well as my own views concerning the same, are lacking in convincing data to sustain them, so that the task accorded me is a somewhat difficult one. In seeking comparatively recent literature contributions on the same subject, hoping to get much help in this direction, I have found that by our distinguished colleague, Dr. James C. White,¹ read before this Association in 1887, and those by our British colleagues, Dr. W. Allan Jamieson and Dr. Walter G. Smith,² read before the Dermatological Section of the British Medical Association in 1895; all containing much for reflection and full of suggestions, but all, as acknowledged by the writers themselves, being somewhat indefinite as to positive assertions, and based largely, if not wholly, upon supposition and individual opinions, and showing the dearth of well studied and well arranged clinical data. Since the time these papers were read, now a score of years, I can only say that there has as yet been no well arranged or systematic study of this subject, and the statements

¹ *Journal of Cutaneous and Genito-Urinary Diseases*, 1887, p. 409; discussion thereon, *ibid.*, p. 436.

² *British Journal of Dermatology*, 1895, pp. 328 and 309, with discussion thereon, *ibid.*, p. 330.

contained in these papers represent, therefore, about all we know to-day. My own statements to follow must likewise be just as indefinite and merely represent, to a great extent, individual opinion, rather than an expression of known and proved facts. The very nature of the subject makes it difficult to study it from a purely scientific standpoint, inasmuch as patients would be reluctant to lend themselves to extensive experimentation of this kind, and hospitals would be loath to furnish beds or wards for such a study. We are therefore obliged to continue our investigations with ambulant patients, and to draw our conclusions from rough clinical observations; and these, as we all know, are, for obvious reasons, often lacking in accuracy, and often moulded more or less by preconceived and prejudiced opinions, as well as often unreliable owing to faulty, though unintentional, inferences. I shall probably go largely over the same ground as the several gentlemen mentioned, and doubtless repeat much that they have said. My remarks will be purposely brief, with no attempt to cover the entire subject, consisting of a few observations and presented more as an opening wedge that, with the additional and probably more thorough and extended suggestions and facts to be presented by my colleague, Dr. George Henry Fox, may at least serve, I hope, to open up a fruitful discussion.

In the first place I must say that in my beginning years of practice, following a tutelage in the Vienna School under the elder Hebra, Neumann and Kaposi, I was, as might be expected, pretty well imbued with the purely external idea of skin diseases, and the subject of dietetics either in the light of possible etiological influence or of a possible curative value, occupied a very insignificant position in my thoughts; but later, from continued personal observation and experience, as well as doubtless to some extent from unconscious absorption of the views strongly held by Professor Duhring with whom I was so long associated, my ideas underwent a gradual but **decided change**, so that to-day the diet seems to me of considerable importance both for evil and good, although I can offer but scant, if any, definite data to support this belief. The acknowledged idiosyncrasies for certain foods by some individuals have always seemed, in my judgment, indicative of a possible insidious, but none the less contributory, causative influence in others. As already stated it is difficult to offer any convincing proof of direct action. In fact I think it must be conceded that in most instances the etiological influence of diet, if it does exist, is an indirect one. From my own observations and inferences I should feel inclined to make several groups

or divisions of possible food action. 1. Idiosyncrasy. 2. Direct local action. 3. By engendering nervous excitement or depression. 4. Incompatible or irrational mixtures. 5. Underfeeding and overfeeding, including improper feeding. 6. Toxic changes in foods due to improper or too prolonged keep; and 7, Chemical food preservatives.

Regarding the first—idiosyncrasies—little need be said. We are all aware of the action in certain individuals of strawberries, crabs, lobsters, clams and the like. The same is observed, but much less frequently with such foods as pork, veal, fish, oysters, acid fruits, and some others. Is it not well, therefore, to bear these facts in mind in the management of our cases and on the assumption of a possible deleterious influence interdicting them? As to the second division—direct local irritant action—we all see examples from time to time in which such foods as acid fruits, tomatoes, peppery and other hot sauces, nuts and some others have provoked an irritable eczematoid condition of the lips and mucous membranes of the mouth, or markedly aggravated such already existing local maladies. In the third division—nervous excitants and depressants—one could well include excessive tea drinking, excessive coffee drinking, the inordinate and sometimes even slight use of tobacco, and the excessive and sometimes even moderate indulgence in alcoholic beverages: these influencing such diseases as pruritus, acne, rosacea, eczema, and eczema seborrhoicum, as well as doubtless some others. In the fourth class—incompatible or what might be called irrational mixtures—one might find an explanation of the popular belief in the causative or prejudicial influence of oatmeal and other cereals. These food stuffs are probably not at all damaging in themselves, but the damage results from the abundant amount of sugar or syrup that many persons add to them; or possibly to the fact that the acid orange or grape fruit often eaten as the first food article is followed by the sugared cereal with an abundance of cream—the combination of cream and raw fruits, and even cooked acid fruits, disagrees with many people, and may thus have an indirect influence upon the skin. It is not impossible too that an occasional evil effect of oatmeal or other cereal is due to incomplete cooking. The truth is, however, that cereals properly prepared and properly eaten in moderate quantity have but little, if any, influence in provoking cutaneous irritation. Buckwheat, in the form of our well-known buckwheat cake, is also sometimes blamed for a prejudicial influence upon the skin, but one might reasonably ask is the buckwheat the factor or is it not in such

instances the added rich mixture of an abundance of butter and syrup or the often associated pork sausage and rich greasy gravy.

The next division—underfeeding and overfeeding—is in my judgment a not unimportant one. The fad of rapid fat reduction, meaning frequently insufficient feeding, so prevalent in recent years, has I feel sure, helped to furnish me with a number of cases of eczema in women. One could not very well say that such a result was a direct one, but this factor is certainly contributory, especially in those hereditarily eczematously inclined. Overfeeding is almost universal in our country, and is doubtless, in a measure, responsible for some of our eczema cases in infants and young children as well as in adults. The whole system becomes surcharged with improperly digested food elements, and elimination being incomplete, an existing cutaneous vulnerability may develop into actual disease. It has moreover always seemed to me possible that the explanation of some of our cases, especially in those subjects in whom kidney and intestinal functions are sluggish or otherwise defective, may be found in the fact that some of the products of overfeeding or improper food digestion, in their attempt to find egress by cutaneous elimination, act directly upon the skin structures as irritants. It is well known that in some of the inflammatory dermatoses the administration of saline laxatives and diuretics, thus relieving and lessening skin elimination, very often has a promptly beneficial and even curative action. In this division of the subject it might also be mentioned that many persons forget entirely that deliberate mastication of the food taken, with its consequent stimulation of the secretion of saliva, constitutes a very important part of food digestion, and that food missing this digestive stage may be directly or at least indirectly of etiological moment. Under this head might also be mentioned the possible deleterious influence of improper feeding in general. A mixed diet is undoubtedly the best, but there are some who do better on a very largely vegetable diet, and those who, on the contrary, do better with meats in excess. I am not able to say from my own observations that an excess of red meat in the dietary has the untoward influence so usually attributed to it. It would in fact seem, from my experience, that the often employed term of “gouty” eczema with its consequent advice of partial or complete interdiction of red meats, is rather a convenient and often handy expression for cloaking our ignorance than a true statement of the existing, and unfortunately often unknown, underlying condition. On the contrary, indeed, it would often seem that a moderate to a full allowance of beef, with a

cutting off of the starches and sweets, is much more frequently beneficial than suppressing the red meat food.

The next division made comprises those cases apparently resulting from toxic changes in foods due to improper or too prolonged keep. I believe that many of the examples attributed to idiosyncrasy could be more correctly explained upon the assumption of toxic changes having occurred in the partaken food. The toxic erythemata, as we know, are not infrequently observed after the eating of pork compounds, veal, oysters, fish, crabs, lobsters and the like. Moreover many of these erythemata are observed more frequently in spring and autumn, those interim periods between the settled heated and cold terms in which the careful supervision of the proper degree of cold or icing in preserving foods is apt to be somewhat relaxed—in the spring the approach of warm weather not being recognized soon enough, and in the autumn the careful summer refrigeration being given up too early. It is possible, indeed, that the greater frequency of the erythemata in the spring and autumn months is due more to this fact than to the generally accepted seasonal influence. The various meat foods mentioned seem much more susceptible to toxic and putrefactive changes than do beef, mutton and poultry, although this last—poultry—is also somewhat prone to undergo rapid toxic changes. At the present day, we have further to consider that certain of these foods, as well as many others, are often kept for prolonged periods in cold storage, during which time, especially if the degree of cold has at times been relaxed, toxic changes, not necessarily perceptible to the ordinary senses, have taken place, and may serve to provoke in some individuals erythematous and other eruptions. Carelessness as to proper food preservation, particularly of oysters and fish, has in my experience often been influential in provoking such outbreaks, more especially in recent years since hotel and restaurant eating has become so common. Indeed, I feel that toxæmia, from improperly kept or diseased foods, especially those named, has a very important etiological relationship to some of the dermatoses. Finally another factor, the use of chemical preservatives, such as boric acid, salicylic acid, potassium nitrate, formaldehyde and others, must be considered as of possible etiological import in some of our cases, either directly due, in certain individuals, to the drug; or more probably to the toxic changes in the foods in consequence of the lack of supervision engendered by overconfidence in the keeping qualities of the chemical preservatives.

In concluding these brief and rather disjointed remarks, I must

repeat to a certain extent, some of the earlier statements. We know that certain foods are toxic in some individuals, these constituting the so-called idiosyncrasies. In others the eruptive phenomena, while not to be attributed directly to the food itself, result from over-eating; this giving rise to indigestion, crowding the eliminative organs and resulting in faulty metabolism. In others, but more especially in those having cutaneous disease tendency, underfeeding as well as improper feeding and overfeeding, may be the deciding factor that calls forth the eruption. Further, in many cases, the evil effects are due to the toxic and putrefactive changes which the food had undergone before or immediately after consumption. Finally the possibility of chemical preservatives and not the food itself, being the etiological element in some of these cases, should not be wholly disregarded.

DIET AS A THERAPEUTIC MEASURE IN DISEASES OF THE SKIN.

By GEORGE HENRY FOX, A. M., M. D.

Professor of Dermatology, College of Physicians and Surgeons,
New York.

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IN introducing the subject of diet in the treatment of skin diseases, for general discussion, I do not feel that a learned and exhaustive paper is essential. It will doubtless suffice, to offer a few definite views which are based upon experience rather than upon any theory, and with which you are perfectly free to agree or differ.

In the first place, I wish to lay great stress upon the importance of a careful regulation of the diet in the treatment of all inflammatory affections of the skin, and this will include all skin affections in which the congestive element is present in a greater or lesser degree. While dieting cannot be expected to cure lupus, syphilis, or malignant disease, it certainly can improve the condition of the patient and modify the local conditions to a slight extent, and hence may prove of service in nearly all skin diseases. But why lay stress upon the importance of diet "which nobody can deny," and which nobody is even disposed to deny? For this reason! While every physician in the land professes to believe in the efficacy of diet in the treatment of disease, very few are inclined to practice what they preach, or at least to accept it as sound doctrine. The majority pin their faith and base

their practice upon the prescription pad, with the same blind confidence that their grandfathers reposed in the lancet. If a patient eats pie and sausage, *t. i. d.*, and complains of indigestion, the average physician is inclined to look wise and prescribe pepsin, bismuth, diastase, resorcin, or possibly the latest uric acid eliminator, instead of simply directing him to eat less pie and sausage. With that unfortunate ability that enables us to see the mistakes of others far more clearly than we perceive our own, I know that many physicians, including some of the gentlemen present, have failed to cure a few cases (and I suspect many cases), by depending solely upon the pharmacopœia—cases in which a rigid restriction of diet might alone have effected a cure, and which would certainly have rendered their drugs far more effective. From a therapeutic standpoint, had I to choose between the cook and the apothecary as co-laborer, I think I would not hesitate for a moment to yoke myself with the former.

In the second place, I wish to lay stress upon the fact that the majority of our patients and those likely to become our patients (not to speak of ourselves) are in the habit of eating too much. The adage that “the board kills more than the sword,” is as true as it is old. While it is undeniable that some of our patients suffer from malnutrition and need to be better nourished before their skin disease can be radically cured, it is also true that even these patients can often be benefited by a temporary restriction of diet. If a man has a sprained ankle and wishes to join a pedestrian race from New York to Cleveland, it would be foolish for him to limp along in the rear of the procession, when by a complete rest for a day or more his ankle might regain its strength and possibly enable him to overtake his competitors. He may not win the race, but he will more than make up for the short time lost. And so a man with a sprained stomach or imperfect digestive apparatus, who wishes to gain weight and strength, will often do well to stop eating entirely, or take a very little of the most readily digested food, until his appetite is sharpened and his digestive powers are in a condition to do their normal work. Even under this regime, he may never become a candidate for aldermanic honors, but he will soon be far better nourished in body, and more peaceful in mind than he would be by adopting the common plan of crowding his stomach with food, the most of which he is unable to digest and assimilate.

For every patient suffering from inflammatory skin disease who is eating too little and suffering from lack of nourishment, we meet with a score or more who eat far more than they actually need and feed the eruption for which they seek relief. Of course, as you know

from experience, these patients delight in assuring us that they eat very little, and live on very plain food, and like the Pharisee of old, they seem to thank God that they are not like others whom they might mention. But here is a fact worthy of our consideration. Any one of them might cut down the daily amount of food taken by one-third, or even one-half and not lose an ounce in weight, or suffer in any way from lack of energy or other bodily discomfort.

Now it is to this unnecessary and often injurious excess of food, combined with sedentary habits, that I attribute a large proportion of the inflammatory skin diseases which we are called upon to treat.

For such patients, I know of no latin prescription which I have ever written or read, which compares in simplicity and efficacy with the simple advice to cut down the weight five, ten or perhaps twenty pounds. The English physicians used to make it a rule to begin treatment of nearly every patient with a calomel and saline purge. This often of itself, does good and is believed to enhance the action of subsequent medication. And so I have found that in treating an inflammatory skin disease, a reduction of weight at the outset is often alone sufficient to produce an improvement, and always tends to increase the effectiveness of our medicinal and local treatment.

In the next place, I would like to express my firm belief that an excess of nitrogenous food in which both physician and patient are accustomed to indulge, is prejudicial to the health of both mind and body. It is without doubt, the cause of many of the ills which were formerly ascribed to malaria, and now commonly attributed to another scapegoat to which is often given the absurd name of uric-acidemia. It certainly is responsible for the existence and persistence of many cutaneous affections. I cannot say just what they are, but might mention in passing, the relation of psoriasis to a liberal meat diet. I have rarely seen a patient with chronic psoriasis who had not observed the fact himself, or could demonstrate after the matter was suggested to him, the fact that during the free use of meat, the psoriatic patches invariably became more congested. In the catabolism undergone by the proteid or albuminous element of food, will doubtless be found in time the precise origin of the autotoxins which underlie many of our common skin diseases. But I will steer clear of physiological chemistry (a little knowledge of which is a dangerous thing), and confine myself to what I know, or at least to what I firmly believe. I will merely offer my opinions without any arguments in their support.

A change of diet I have always claimed to be of great advantage, even if it be from a theoretically good diet to a commonly considered

bad diet. An inflammatory skin disease is not to be regarded as a dispensation of Providence. It is the result of some definite cause, whether we are able to discover it or not. Most of our patients cling to that old and erroneous belief that they can go on living as they please, and throw the responsibility of their cure upon the doctor and his remedies, and unfortunately many physicians, in consideration of an honorarium, are willing to accept this relationship. It is a great mistake. As physicians, we should both realize ourselves and strive to make plain to our patients that they, in many cases, are responsible for the eruption from which they suffer. They have danced and are now paying the fiddler. If they object to fiddler's bills, they have got to give up the dance.

When patients tell me, as they frequently do, how irreproachable are their dietetic and other habits, I delight in assuring them that it is not what I eat and drink and smoke and do, but what they have been in the habit of eating or doing that has occasioned their acne or their eczema. A change must be made in the patient's manner of living, in many cases of skin disease, or the wisdom of the doctor, with the assistance of the apothecary, will prove of little avail.

In advising our patients what to eat, it is foolish, I think, to say "don't eat this or don't eat that," for one might spend an hour or more in making out an expurgated diet list, and still leave foods unmentioned which might, if taken in excess or at the wrong time, prove extremely detrimental. It is far better to name a few nutritious and easily digested articles. Limit the patient to these for a short time, stating that other foods are not necessarily injurious, but that they will certainly do no harm if they are not eaten. Such a plan enables the physician to know exactly what his patient is eating and helps him to ascertain what does good and what does harm.

In prescribing a dietary for patients with skin or other affections, it is the habit of most physicians to arbitrarily exclude certain articles of food, and so far as I can see, without rhyme or reason. "Avoid sweets and starchy foods," is advice most frequently given, and this routine prescription appears to me to be a colossal fad. There are some, to be sure, who cannot easily digest sugar or starch, as there are some who cannot eat lobster or strawberries with impunity. But the possessors of such an idiosyncrasy are very few.

I have never known sugar or starch, not taken in excess or between meals, to aggravate an acne or other skin disease. On the other hand, I have had dyspeptic patients who have been adjured by various physicians to avoid these articles, and have ordered them to eat nothing but bread and butter and candy for a few days to see

what dire results would follow. On this novel diet, the digestion, if not the skin disease, has notably improved, not on account of the curative effect of sugar and starch, but on account of the abstinence from other and more harmful articles of food in which they had been indulging.

Frequently some lady tells me, when the subject is mentioned, "Oh, Doctor, I am already dieting—I never touch sweets." And what does this mean? That she may possibly breakfast on lobster salad and mince pie, or indulge in some equally or more absurd mixture, and yet her family physician has laid down the dietetic law which he deems to be all-sufficient for her stomach's salvation, and in obedience thereto, she never touches sweets. And she mentions the fact as though it entitled her to perfect health on earth and a final passport to heaven.

"Avoid fish," is advice commonly given to patients with any skin affection whatever, and so far as out-of-season shellfish is concerned, it may be sound. But even patients with urticaria, unaware of tradition, can sometimes eat lobster with impunity, and fresh fish never to my knowledge, has caused or aggravated a skin disease. It is a palatable and advisable change from the ordinary meat diet, and when shad are running, and planks are plenty, the man who indulges in roast beef, which he can get at any time of the year, I have an opinion of which I need not express.

"Avoid fried food," is another bit of favorite advice which usually amounts to nothing. In my humble opinion, with which I am sure some of you will agree, "Maryland fried chicken," is a dish fit for any patient, though he be pope, president, or king. Much better advice would be to never eat fried, roast, baked, stewed, or any cooked food whatever, unless it be *properly cooked*. To those patients who have been imbued with a wholesome horror of "red meat," through the advice of their physicians, I would mildly offer the suggestion to occasionally try a juicy Châteaubriand steak in place of the monotonous squab and chicken, and risk the consequences.

Finally, I wish to lay stress upon the fact that the character of the food advisable in the treatment of cutaneous and other diseases is of less importance, perhaps, than the manner in which this food is taken. It is not what a patient eats, so much as it is how, and when, and under what circumstances he eats it, that tends to the production of an inflammatory condition of the skin. Hasty eating, irregular eating, and meals taken under the stress of excitement and worry, are the daily experiences of many of our patients both rich and poor.

To say that such habits are certain to prove harmful, is merely to utter a platitude, but the assertion that they are often productive of inflammatory skin diseases, is strictly true and worthy of our careful consideration. It is a fact and one which in our reverence for time-worn methods of treatment, and in our enthusiasm over new remedies we are all prone to forget. The subject is a complicated one involving as it does the powerful influence of the nervous system on the nutrition of the skin—and a mere reference to it must suffice.

In discussing diet in the treatment of skin diseases, I can hardly refrain from referring to those two therapeutic handmaidens, exercise and the cold bath. Diet, exercise and bathing! These constitute the tripod of every trainer, restoring health, imparting strength, and inspiring energy. They are the faith, hope and charity of our medical gospel, and just as they tend to put a man in a fit condition for a prize fight or a boat race, just as certainly will they put many of our patients with inflammatory skin disease in a physical condition in which nature alone or assisted by medical skill, will speedily effect a cure. I almost blush to repeat what I have asserted heretofore, that any ignorant trainer can cure many cases of chronic inflammatory skin disease, when educated physicians have repeatedly failed to accomplish this result. And why? Simply because the physician gives good advice which usually the patient does not relish nor heed, and adds a latin prescription or two, which alone are incapable of curing the disease, but upon which the patient solely relies. The trainer, on the other hand, gives the good advice,—but mark carefully the difference—he also enforces that advice.

In conclusion, let me add that I have no desire to pose as a therapeutic nihilist, decrying the wisdom of the past and all modern therapeutic progress. I am simply raising a feeble voice against routinism in the use of remedies and the common disregard of certain hygienic measures which are simple and sensible—if not highly scientific.

GENERAL DISCUSSION—DIET IN DISEASES OF THE SKIN.

(a) As an Etiological Factor. By Dr. Henry W. Stelwagon of Philadelphia.

(b) As a Therapeutic Measure. By Dr. George H. Fox of New York.

Dr. WILLIAM A. PUSEY, after expressing his appreciation of the contributions of Drs. Stelwagon and Fox, referred to the recent article by Dr. Woods Hutchinson upon judicious omnivorousness, which completely covered the subject. The speaker said there was one point in connection

with diet to which he wished to refer, and that was, the tendency to cut down the diet of growing girls with the idea that they were eating too much, while as a matter of fact they were underfed.

Dr. WILLIAM T. CORLETT said he thought the dermatologist, in common with the general practitioner, approached the subject of diet from the wrong standpoint. The directions that were given, as a rule, were too general, and failed to apply to the individual case. In order to ascertain the dietetic errors or deficiencies, one must be specially equipped for making analysis of the stomach contents. What was one man's meat was another man's poison, and no one rule could be laid down to apply to all cases. In certain catarrhal or inflammatory conditions of the stomach, for example, foods like oatmeal would not be tolerated, and for that reason it was important to ascertain the exact condition of the stomach as well as of the whole alimentary tract before one is in a position to direct an appropriate dietary.

Dr. Corlett thought there was no doubt that derangements of digestion had much to do with certain diseases of the skin. He referred particularly to erythematous lesions about the mouth and lips, which he had frequently seen disappear under internal treatment, and without the use of any external remedies.

Dr. BURNSIDE FOSTER said he had always thought that the arrangement of the diet of his patients was a most important part of the treatment, particularly in the inflammatory type of skin diseases, and in that connection, the personal equation should never be lost sight of. No single rule could be laid down to cover all cases.

For a number of years, Dr. Foster said, he had held the view that he could get much more rapid results in psoriasis by making vegetarians of his patients. About five years ago he had under his care, two sisters, one about eighteen years old, the other perhaps five years older, both of whom suffered from psoriasis, which was almost exactly similar in its distribution and persistence. They were both intelligent girls, and very anxious to be cured, especially one, who was engaged to be married. As an experiment, soups and meats were absolutely interdicted. In about three months one of the girls was absolutely free from psoriatic lesions and remained so, while the other did not recover so promptly, and had since had a number of recurrences. This experiment showed the influence of the personal equation. As a rule, however, the speaker said that the omission of meat was beneficial in the treatment of psoriasis.

Dr. FOSTER said that, bearing upon this general subject, he had recently read an interesting volume of Court Memoirs in the Seventeenth Century, which recounted the experience of a German princess who came to France where she suffered much from a skin affection which was apparently urticaria. She sent to her native country for a particular brand of beer and sausages, and after this the skin disorder disappeared. She then

insisted that the ladies of her Court should partake of the same food, with the result that they immediately broke out with the same skin disease from which the princess had formerly suffered. Here was another instance of the personal equation.

Dr. Foster said he was inclined to agree with Dr. Fox that it was a good idea to learn what your patient was in the habit of eating, and then make just as radical a change as possible. Diet was a good deal like climate. People wanted something different from what they had been accustomed to. Some skin affections that were aggravated by a dry climate, did very well in a moist climate, and *vice versa*, and what would prove serviceable in one case would be harmful in another.

Dr. GEORGE T. JACKSON read the following newspaper quotation, in which he thought our modern ideas regarding diet were fairly well expressed: "There is scarcely an article but finds condemnation somewhere among us. The banana, dear to childhood, is denounced by the pediatrician as unwholesome, though whole populations live upon it; while no printed diet list would include pork and bacon, which Dr. Woods Hutchinson insists are the keystone of our national greatness. Even in the dietetics of disease—this rather than health being our chosen realm—utter disagreement and confusion reign. Chemical formulas of horrifying elaboration, lead one to condemn red meat in gout, another to pronounce it a nutriment readily assimilable and easily disposed of. And the quarrels over food stuffs permissible to the rheumatic are equalled only by those over carbohydrates in grave diabetes."

Dr. Jackson said he had enjoyed the privilege of working with Dr. Fox for more than twenty-five years, and he had become imbued with the latter's ideas regarding diet. It was largely a matter of idiosyncrasy, and of the workings of that chemical laboratory located inside of us. What would injure one man might benefit another. Personally, the speaker said, he laid great stress upon simplicity in diet, and he thought that many of our troubles came from eating too many different kinds of food stuffs at the same time. The ordinary table d'hôte dinner gave the stomach too great a variety to work on. While milk was supposed to be an innocuous article of diet, it apparently did not agree with many persons.

Dr. Jackson said he had no doubt about the influence of tobacco, coffee and tea in the production of pruritus. The worst cases he had seen of that affection were in persons who smoked to excess. There again, however, it was difficult to lay down a hard and fast rule as to what was too much. It was the personal equation that had to be taken as the guide. In rosacea he thought it well to eliminate from the dietary anything that caused flushing of the face, such as tea, coffee, hot soups, and the like. In regard to eczema, he had found that certain individuals had eczema during certain seasons of the year, and that it was due to certain foods that were on the market at such times. He recalled one case which was

due to eating grapes in the fall. In many cases he had had excellent results by putting the patients on a milk diet with cereals, but not oatmeal.

Dr. WILLIAM F. BREakey said the practical character of the papers of Drs. Stelwagon and Fox appealed to all. It had been said that doctors could violate more rules of diet than any other class of men. In the experience which Mark Twain recently gave of "how he had lived to the age of seventy," he stated, among other things, that he smoked a brand of cigars in his early life which had cost him \$4.00 a barrel! and now cost him \$6.00 or \$7.00 "!!

In relation to the pancake, to which one of the speakers had referred, and which was such a popular breakfast dish in this country, Dr. Breakey said he thought one of the objections to it, was that it was usually not sufficiently cooked. Another factor which he thought might have some bearing upon the proper digestive functions was the chewing-gum habit, which was very common, and which caused a waste of saliva.

Dr. JAMES M. WINFIELD said that the gist of this whole matter was summed up in one of the statements made by Dr. Stelwagon, namely, to try and find out what your patient could assimilate, and thus avoid clogging up the intestinal canal with a large collection of waste material. Another point was to drink plenty of water. The average individual did not drink enough water, not necessarily with meals, but between meals.

Dr. Winfield said that fish, out of season, was probably one of the most injurious articles of diet. Of course, this remark did not apply to perfectly fresh fish, or to fish in season. Stored fish was very apt to produce urticaria, especially in susceptible patients. The speaker said he agreed with Dr. Fox, that the prohibition of red meat and starchy foods had become almost a fad. With regard to exercise—Dr. Winfield said he believed that a certain amount of judicious exercise, enough to help in the assimilation of the food, was desirable, but it was hardly necessary, he thought, to put the patients in training as for a prize fight.

Dr. FRANK H. MONTGOMERY said he agreed with the general consensus of opinion that the proper thing to do was to study the individual. In addition to the kind of food, the manner of eating it was of much importance, as well as the time of eating, and the condition of the patient when he sat down to his meals. There was a certain type of nervous women and girls, and also some men, who were in the habit of eating when they were tired, or hurried or worried. He could recall cases where he had been able to control mild forms of rosacea in nervous women by instructing them to take a short rest before meals, and then to eat quietly, and to masticate their food thoroughly.

The speaker regretted that Dr. Hyde was not present as he had been in close touch with Dr. Fox for many years, and his faith in the good effects of diet, cold bathing and exercise was almost as great as that of Dr. Fox himself. The speaker said that in his association with Dr. Hyde,

he had witnessed so constantly the beneficial results of these measures, that he was a strong believer in them.

Dr. MARTIN F. ENGMAN said he recently saw a lady with a generalized eczema, which she had had since early childhood. She was sent to the hospital, where the urine and feces were carefully examined, thinking there was possibly some underlying factor for this condition. The urine was found to be loaded with indican. She was put on a vegetable diet, all animal food being absolutely cut off. In the course of ten days her eczema had greatly improved. Whether there would be a recurrence of the eruption or not, he could not say. The external treatment consisted of some oily protective preparation. The case was a remarkable example of the influence of diet upon certain eruptions.

In the room adjoining the one occupied by this woman, Dr. Engman said, there was a patient who had a dermatitis complicating a glycosuria. After indulging in sugars or starches, this eruption would develop. When those articles of diet were cut off, the eruption would clear up.

Here then were two patients; one could not eat animal albumins, the other could not eat starches, which seemed to emphasize what some of the speakers had said in regard to the importance of the personal equation. Some individuals could not eat one thing; others another.

Dr. HERMANN G. KLOTZ said he wished to call attention to another aspect of the subject, namely, the diet among different nations and in different climates. The speaker said that so far as he knew, psoriasis was common in all countries, civilized and uncivilized; the same was true of eczema, in spite of the various forms of dietary indulged in. Both diseases apparently affected people who lived in entirely different ways.

Dr. THOMAS C. GILCHRIST said that overeating was almost universal in this country, and could best be explained, perhaps, by the general prosperity of the people. People in this country had the tendency to absorb more than their share of nitrogenous food. In Russia, white bread was considered a luxury, and the same was true of other articles of diet which were commonly consumed here. In spite of this vice of overeating, however, the average length of life was increasing, and the amount of sickness was decreasing.

In connection with the subject of food, that of elimination went hand in hand. Of the food taken into the stomach, a certain amount was taken up by the system, the quantity depending on the amount of exercise, etc. In any skin disease accompanied by itching that symptom was usually worse at night. The trouble was caused by the unused food in the intestines. This gave rise to flatulence and other indications of intestinal indigestion. In the morning, the pruritus was usually better, as the patient had had no food during the night, and the food products in the intestines had been eliminated. That was shown by the eliminative products in the urine and feces, which gave an indication of what was going on chemically

in the bowels and other organs of the body. It was along these lines, Dr. Gilchrist said, that valuable discoveries would doubtless be made in the future in the field of internal medicine.

In regard to diet, the patient should be given food that he could digest properly, and then eliminate what he could not use. Otherwise, the residue would act as an irritant and would be apt to aggravate any skin disease from which he might be suffering. The drinking of plenty of water was an important factor, as were also the regulation of the bowels and the eliminative functions of the kidneys and skin. Diet essentially meant the study of the individual, and the study must be on broad principles. It was along these lines that the treatment at the well known foreign spas was carried out.

In speaking of the disagreeable effects at times complained of by patients after eating buckwheat cakes, Dr. Gilchrist said they were probably due to the greasy griddle rather than to the buckwheat flour itself. In the South they were usually cooked without grease, and rarely gave rise to unpleasant symptoms. The same was true in preparing fish.

Dr. WILLIAM A. PUSEY said he had recently given some attention to cold storage plants, and in spite of the apparently fine condition of the fish and poultry that had been encased in ice, he had found that such meats were frequently the source of toxic and angioneurotic disturbances. This was due to the fact that these meats are stored without removing the intestines, or, as they put it, without the entrails being drawn, and for that reason they become impregnated with fecal matter.

Dr. STELWAGON, in closing, expressed his surprise at Dr. Fox's statement regarding sweets and starches, as those articles had always impressed him as having a damaging influence.

The personal equation, to which a number of the speakers had referred, was no doubt a factor in many of our cases of skin disease, but, in the speaker's estimation, a relatively small one, because there were certain foods that practically disagreed with everybody, certainly under certain conditions.

Dr. Stelwagon said he agreed with Dr. Pusey in regarding cold storage meats as an important causative factor in the production of toxic erythemas, etc., which had largely increased in number during recent years. In conclusion, the speaker called attention to the fact that the Americans—probably nine out of every ten—were suffering more or less from gastro-intestinal catarrhs of various degrees of severity, and that fact should be taken into consideration in connection with this general subject.

Dr. Fox, in closing, in speaking of the effect of sugars and starches, said that was something that could be easily tested. If Dr. Stelwagon would put his patients on pure starch or sugar for a longer or shorter period, the speaker said he would venture to predict that they would im-

prove, not as the result of the starch and sugar diet, but because they had abstained from other articles of diet that were more harmful.

In reply to the reference made by Dr. Klotz in regard to the prevalence of psoriasis among different nations and in various climates, Dr. Fox said he knew of no statistics bearing upon that point. It would be interesting, for example, to learn how common psoriasis was in Japan, and he hoped that some one would be able to throw some light on that aspect of the subject, which opened an interesting field for investigation. Personally, he was convinced that an excess of nitrogenous diet, particularly meat, increased the congestion of the skin and favored the development of psoriasis. He had always maintained that water was the best and cheapest remedy in the pharmacopœia, and when taken freely between meals and in moderation with meals, it would take the place of laxatives and increase the elimination of toxic substances.

In regard to the importance of the personal equation, Dr. Fox said that in every case of syphilis we must regard the patient himself, but still, we treat syphilis upon certain general principles. In his discussion of the subject of diet, the speaker said he had endeavored to confine himself to certain general principles and lay down certain general rules, to which, of course, there were many notable exceptions. While there were certain patients who eat scarcely anything, yet it was safe to say that the majority of our patients eat too much.

In speaking of idiosyncracies, Dr. Fox said, that while they were undoubtedly met with at times, yet in nine cases out of ten, and even in ninety-nine cases of a hundred, the so-called idiosyncrasy in regard to certain articles of food was merely a notion or whim. Some patients claim they cannot eat eggs without becoming bilious; others say they cannot take milk, and the average physician was too apt to humor such whims or notions. The trainer, on the other hand, tells his man to do this or that; he tells him, "you can drink milk, and you will drink milk," and as a rule, the man finds not only that he can drink milk, but that it agrees with him and he actually begins to like it.

DERMATITIS EXFOLIATIVA.

By BURNSIDE FOSTER, M. D.

Clinical Professor of Dermatology, and Lecturer on the History of Medicine,
Medical Department of the University of Minnesota, St. Paul, Minn.

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THERE have fallen under my observation during the last fifteen years quite a number of cases which I have grouped together in my records under the general class of exfoliative dermatitis because that name is descriptive of all of them. Some of these cases have puzzled me exceedingly, and the more I have dug into the literature of the subject the more I have been puzzled, since the dermatologists of the world are by no means agreed as to the exact nature of the different types of cases which in a general way are to be described by the above name. I have selected this subject for discussion, not because I have anything new to offer, but because I hope to have some of my difficulties explained, and because I want to learn from your discussion much that I have not been able to gather from a study of the literature at my disposal. I am so situated that I can very rarely have the benefit and assistance of consultation in my difficult cases, and chief among the many privileges which I anticipate from this association, which has honored me by electing me to membership, is the opportunity to consult with you in regard to some of the problems which I am unable to solve to my own satisfaction.

The first subdivision of the cases concerning which I wish to consult with you is *Dermatitis Exfoliativa Neonatorum*. I have seen four cases of this condition. Two of these cases corresponded quite closely with the description of the disease as it has been generally seen. Both were male infants, and in neither could the family history of either parent throw any light on the etiology:

CASE 1. Male infant, born perfectly healthy in appearance; there was nothing abnormal until the sixth day, when the mother noticed that there was a general scarlet eruption over the whole body

NOTE.—Through a misunderstanding on the part of the author of this paper as to publication in THE JOURNAL OF CUTANEOUS DISEASES, the official organ of the American Dermatological Association, this paper has already appeared without the discussion in the St. Paul Medical Journal.—EDITOR.

without other symptom except slight restlessness. Two days later when I first saw the child, there was a general scaling, not branny, but large white scales, which soon separated and which in a day or two became immense flakes of epidermis. Complete casts of the feet and hands were shed, and after a week numerous boils and furuncles appeared on various parts of the body. The mucous membranes of the mouth and nose were much congested and inflamed. The child rapidly emaciated, refused all nourishment and died on the 14th day.

CASE 2. The second case was in nearly all respects like the first. It began on the tenth day after birth, the scales were smaller and more like bran at first, but soon the entire epidermal covering was shed and the child died after two weeks. There were no boils in this case.

CASE 3. The third case began just as the other two did, and I expected the same issue, but after the flaking and shedding of the epidermis had lasted for about three weeks, the child in the meantime taking its nourishment well and showing no constitutional signs, the scaling suddenly cleared, the redness of the skin remained a few days after the scaling had ceased, gradually disappeared and the child recovered entirely and has had no skin trouble since. (Five years.)

CASE 4. The fourth case was particularly interesting, and I think unusual, for it began as a typical pemphigus of the epidemic form. The mother for some weeks before the child was born, had suffered from a generalized eruption of bullous impetigo and the child was covered with bullæ of various sizes which were at first filled with clear serum, but soon became pustular. For several days the eruption of bullæ continued to appear and then ceased. The skin cleared up and I anticipated no further trouble. About four days later I again saw the child on account of a brilliant red eruption which began on the neck and rapidly spread all over the body. After twenty-four hours, a fine bran-like scale became apparent and by the end of a week the entire epidermis was being shed in great sheets. This continued for three weeks, the child failing in strength and refusing nourishment most of the time. A few boils appeared about the neck and head. During the fourth week an improvement was apparent, the scaling became less, the skin finally cleared up and the child recovered entirely and has since remained well. There was no fever at any time in these cases.

These four cases presented almost exactly the same clinical picture, and in none of them except the last, was there any clue to the etiology. In the fourth case, we undoubtedly had a streptococcus infection of the skin, indeed this was demonstrated, and the exfoliating dermatitis was a sequel. My treatment of these cases was the same in all and very simple. I had the little patients kept for several

hours daily in a warm bath to which a little bran or starch was added, and in the intervals the body was wrapped in flannel soaked with pure cod liver oil. No attempt at internal medication was made.

What is the nature of these cases? I find various theories advanced; the one which seems to me the most tenable is that we have to do with a true infectious disease, and the reported epidemics among children in institutions would seem to bear out this theory.

The next group includes eight cases. I shall not attempt to record each of these cases positively as to diagnosis except to include them all under the general term of *Dermatitis Exfoliativa*. I believe, however, that two and perhaps three of them are instances of the condition first described by Hebra as *Pityriasis Rubra*. I will present these three cases first:

CASE 1. Male, American born, butcher by trade, thirty-five years old, family history absolutely negative, so far as present trouble is concerned. When first seen he had been suffering from a dry, scaly eruption for about three months; no treatment seemed to have any effect on the disease. Examination showed the skin of the entire body to be of a vivid scarlet color and covered with ragged, feathery-looking scales, which were easily detachable and which rapidly reaccumulated. The patient estimated that he shed at least a pint of scales and flakes daily. There was no itching at first, no apparent effect on the general health, and careful physical examination failed to detect any other organic trouble. I ordered prolonged hot baths, followed by liberal inunctions with olive oil and Fowler's solution internally. For several months the condition remained unchanged except that the hair began to fall and the nails to become thick and brittle. Alopecia became complete and all the nails were shed. About five months after I first saw him he began to fail in general health, his appetite diminished, he lost weight and strength, complained of constant chilliness (although there was no fever) and he had pains in his joints and the ankles were somewhat swollen. About this time albumin and casts were detected in his urine. The arsenic was stopped as it evidently was doing no good. The exfoliation of skin increased, great sheets coming away, and the skin, still brilliantly red began to look shrunken and atrophied and was cracked and fissured so that he could hardly maintain any position with comfort. He failed rapidly, had an obstinate diarrhœa, vomited occasionally, became dull and for a few weeks before his death was comatose much of the time, and large bed sores developed.

He finally died about ten months after I first saw him.

CASE 2. Girl, twelve years old. American born. Father, a

chronic drunkard, died of delirium tremens. Mother always healthy. The mother says that the child was sickly from the time of its birth, and had much trouble with what was called eczema during infancy, but that this entirely disappeared when she was two years old. At the age of six, there appeared an eruption of dry scaly spots all over the body which was diagnosed by several physicians as psoriasis. The scalp was always dry and scaly. This eruption would disappear after a few months, and then a few months later reappear. The skin during the intervals was dry and harsh, and the scalp continually covered with scales and the hair thin and lusterless. The general health of the child was good. I first saw her when she was eight years old and recorded the case as one of psoriasis. I did not see her again, and indeed had forgotten all about the case until four years later, February, 1905. At this time the picture of a typical exfoliating dermatitis was complete. The vivid red, dry skin, the exfoliation of great sheets of epidermis, the thin lusterless hair growing from a scalp covered with an abundance of white scales, made the picture quite typical. There was never any itching, but there was much complaint of pain in the back and joints, and the skin was sore between the legs and in the axillæ. The glands in the neck, axillæ and groins were somewhat enlarged. Soon the skin began to crack and in places there was some moisture with thick crust formation, this, however, soon disappeared. For several months there was very little change in the child's condition except that the amount of scaling seemed to increase and there was much more pain in the joints, the ankles being considerably swollen. The child was kept for several hours daily in a hot bath, sometimes containing bran and sometimes starch, which seemed to give much comfort and she was wrapped in flannel saturated with cod liver oil during the interval. In October, 1905, Dr. W. L. Baum of Chicago, was by chance, in St. Paul, and he saw the patient with me. At that time her condition was pitiable and I expected her to die. She was comfortable only in the bathtub. Curiously enough, however, during all the time her nutrition had not been interfered with and her appetite was perfectly normal. Dr. Baum agreed to the diagnosis of pityriasis rubra and suggested a trial of carbolic acid internally. She had taken arsenic and cod liver oil for some time with no benefit. I ordered a pill containing one-half grain of carbolic acid to be taken three times daily. Within a week after beginning this treatment, a marked improvement was manifest, and by the middle of November, about a month later, the skin of the body ceased scaling, although it was still dry and harsh and required constant oiling, and the red color had practically disappeared. The child was up and dressed, the pain in the joints had disappeared and she felt perfectly well.

At the present time she is up and about and goes to school. There is slight scaling constantly going on about the face and ears and scalp, but the skin of her body is perfectly normal. She seems perfectly well.

CASE 3. Girl six years old. Scandinavian parents. Family history negative. Three months before I first saw her there appeared on the hands a brilliant red eruption, accompanied by dry, fine bran-like scale. There was no itching or burning or other subjective symptoms, and the general health of the child was excellent. The redness of the skin gradually spread up the arms and at the end of a month the body was pretty well covered. When I first saw her the entire skin had the same vivid scarlet hue described in the other cases and there was a constant desquamation of dry, rather large scales in enormous quantities. The scalp was very dry and scaly, and the hair thin and dusty looking. The finger and toe nails were thick and cracked, and in a short time they all loosened and were detached. There was little change in the local condition for two months, and apparently no effect whatever on the child's health. I think I have never seen more extensive exfoliation nor such an abundance of scales, nor such a brilliantly red skin. The disease lasted altogether for about six months, when the scaling suddenly ceased, the skin became normal in color, and the hair, which had not been entirely lost, began to grow again and in a few months the child was as well as ever and there remained no trace of her former trouble. She is now, nearly two years later, perfectly well.

The remaining five cases, while presenting in some respects a very similar clinical picture to those just described, were of a much milder type, had no constitutional symptoms and lasted but a short time, and did not with one exception involve the entire cutaneous surface and might, I think, be described as cases of acute idiopathic exfoliative dermatitis.

CASE 1. Man, thirty-five years old, American born, clerk by occupation. Previous history good, family history negative. Present trouble began about three weeks before I saw him, with a red, scaly, slightly itchy eruption on the hands and arms. The itching was not severe and soon disappeared. When he first consulted me the hands and arms were covered with large, silvery, easily detachable flakes of epidermis, and the skin beneath them was perfectly dry and of a dull red color, quite different from the brilliant scarlet in the first three cases described. Both arms were involved up to the shoulders, and a similar condition was just appearing on his feet. There was

some dryness of the scalp with an apparent seborrhœa sicca, but practically no alopecia. The feet and legs soon presented the same appearance as the hands and arms, but the body remained perfectly normal, except that the hair was quite hard and dry. There was no exfoliation on the body at any time. The condition persisted uninfluenced by treatment for about six weeks after I first saw him, when it gradually improved, and by the end of two months had disappeared entirely. I have not seen the patient since, now more than five years.

CASE 2. American born, laborer, forty-five years old. No family history obtainable. The patient has had several, he thinks five or six, similar attacks during the last ten years. Previous to his first attack he had worked as a mason and handled a good deal of lime and mortar. Before each attack there has been slight fever and a distinct chill. The skin of the hands and feet became suddenly red and painful with quite a marked burning sensation, but no itching. Within a day or two the hands and feet began to scale and the skin to exfoliate quite rapidly. The desquamation took place in large sheets, and the underlying surface was red and tender. The whole process was absolutely dry. The attack lasted about two weeks, as had each previous one and then disappeared, leaving the skin perfectly normal.

A precisely similar case is described and illustrated by Stelwagon on page 186, of the fourth edition of his *Treatise on Diseases of the Skin*.

CASE 3. Woman, thirty-seven years old, under treatment for constitutional syphilis. For about two weeks before I first saw her she had been using inunctions of unguentum hydrarg. The ointment had been rubbed into the legs, arms and sides of the thorax. After the thirteenth rubbing, there appeared almost simultaneously in the groin and axillæ, a red, irritable eruption which was soon covered with a thin, white scale. Within three days the whole surface of the body was involved in the process, and at the end of a week there was complete exfoliation of the skin all over the body. There were no constitutional symptoms, but the skin was exquisitely tender and in the axillæ and crotch, there was considerable moisture and slight crusting, while the remainder of the body was dry and presented the typical appearance of exfoliating dermatitis. There was no itching, but considerable pain where the skin was moist and raw. The attack lasted about three weeks and recovery was complete.

CASE 4. A man, thirty-two years old, harnessmaker by trade. During childhood suffered from various skin eruptions, probably of the nature of eczema. About two years before I saw him he had an attack very similar to the one about to be described. The present attack began as did the first one, with marked burning and tenderness

in the soles of the feet, which soon became red and scaly. There was at no time any moisture. When I saw him the hands were affected in the same way and the skin was beginning to flake off in large scales and there were quite deep fissures on the palms and soles. After the first few days, there was very little burning and practically no itching. The process gradually spread up the legs and arms, where the exfoliation was very extensive, and there appeared a fine bran-like scale on the body. The face and scalp were not affected at all. The skin of the arms and legs was very red, but this was not apparent on the body. There was no general symptoms and the patient recovered in about six weeks.

CASE 5. This case, although apparently belonging with those just described, presented a somewhat different picture, in that the exfoliation was at all times of a fine bran-like character. The patient was a widow, sixty-five years of age. There was no previous history bearing on the present condition, which had existed about two months before I saw her. The skin of the body was quite red, rather dull than brilliant, and there was a constant exfoliation of very small, silvery scales. There was very little scaling of the hands and feet, it being mostly confined to the trunk. There was no itching or burning or any subjective symptoms, and her general health was excellent in all respects. The desquamation was enormous in amount, there being at times nearly a teacupful of scales found in the bed, shed in a single night. There were no individual spots on the body, but the exfoliation was evenly distributed. The scalp and finger nails were not affected. Prolonged warm bran baths and constant oiling gave much relief, and after three months of this treatment the desquamation ceased and the skin became normal in appearance, except that it was and has since remained quite dry and harsh.

It is apparent from a study of the writings of the older dermatologists, beginning with Hieronymus Mercurialis, whose treatise (*De Morbis Cutaneis*, Venice, 1570) was the first exclusively dermatological work, as far as we know, that cases in all respects similar to those above described, were familiar to them and were all included under the general name of pityriasis. Rayer in his interesting treatise published in Paris in 1830, reports quite a number of cases of exfoliative dermatitis, two of which seem to be exactly similar to the disease which Hebra first named pityriasis rubra. Rayer also gives some references to the writings of the ancients wherein the same disease is described.

The etiology is still unknown, although there is in many of the reported cases a well-defined relationship with eczema, psoriasis,

pemphigus, and some other of the more definite dermatoses. Some of the cases have apparently been caused by the trauma following the external use of irritating drugs, and some have been evidently infectious as shown by Ritter's series of cases of epidemic exfoliative dermatitis in infants, and in the cases occurring in adults in institutions, recorded by Savill, Russell, Hutchinson and others. The histopathology of dermatitis exfoliativa is simple and has been quite clearly worked out by numerous observers. The recorded observations vary only as different cases in different stages and of different grades of severity have been selected for study. We have in the beginning and in the mildest cases a simple hyperæmia, later a distinct inflammation affecting the derma and terminating in the advanced cases in atrophy, and almost complete disappearance of the glandular elements of the skin with thickening of the walls of the blood vessels and marked cellular infiltration. The rete is wholly or partly occupied by a deposit of pigment granules.

To my mind the most interesting problem connected with the group of cases which Besnier includes under the general term "érythrodermies exfoliantes" is, whether we have to do with one disease, varying in severity and extent in different cases, or whether we have several distinct diseases to deal with.

At least seven different types are distinguished by name (Brocq):

1. Dermatitis scarlatiniformis recidivans (erythema desquamativum scarlatiniforme recidivans).
2. Subacute generalized dermatitis exfoliativa,
3. Chronic generalized dermatitis exfoliativa,
4. Pityriasis rubra, Hebra's type,
5. Subacute benign pityriasis rubra.
6. Chronic benign pityriasis rubra,
7. Dermatitis exfoliativa neonatorum.

Undoubtedly there have been recorded, probably most of you have seen, typical cases of each of these dermatoses, and where the individual case has remained typical throughout its course, it might seem that it was a distinct disease. On the other hand from a careful study of the cases which I have been able to find complete records of, as well as those which I have seen myself, I am more inclined to believe that in the entire group we have but one disease which runs a different course in different individuals. I am aware that the leading French, German and American dermatologists believe that there are at least three distinct diseases in the group, but their arguments to

establish this view have not yet convinced me, and I would rather incline to the English view of one disease. I am, however, open to conviction. Those who maintain that there are several distinctly different diseases do not, however, claim to be able to distinguish between them except in very occasional and very typical instances.

Until we have worked out more accurate and more definite knowledge of the etiology and pathogenesis of this group of exfoliating dermatoses, it would seem to me better not to complicate our nomenclature by so many different names as are at present current in dermatological literature. I would for the present retain only the term, *dermatitis exfoliativa*, adding the word *epidemica* or *contagiosa* for those cases where the infectious nature of the disease is apparent.

So far as treatment is concerned, I know of no specific internal medication, although in one of my own cases, and in several others which have been recorded, carbolic acid internally has appeared to produce a remarkable change for the better. The disease is apparently in most cases like the infectious exanthemata, a self-limited one, and if the patient recovers there may be subsequent attacks. The symptomatic treatment which I have found most satisfactory consists of prolonged (in some cases where conditions permit) permanent warm baths. After coming out of the bath the patient should be enveloped in flannel soaked with either cod-liver oil or olive oil. Some mild antipruritic may occasionally be found of service, but in the majority of cases this will not be called for.

I shall hereafter administer carbolic acid internally in one-half grain doses, watching the kidneys carefully, unless I become convinced that it has no therapeutic value.

DISCUSSION.

Dr. WILLIAM A. PUSEY said he had watched cases of this type with some interest for a number of years, and his conclusions regarding them differed somewhat from those of Dr. Foster. He was convinced that there was one definite disease, the pityriasis rubra pilaris of Devergie. The speaker said that his conviction as to the Hebra type being a definite pathological entity was by no means strong, and he was rather inclined to regard those cases as evidences of trophic disturbance of various kinds and origin.

As to the other forms, Dr. Pusey said he believed that the term *dermatitis exfoliativa* was well preserved for them. He had seen them follow the use of iodoform, and in connection with seborrhœal eczema, psoriasis

and other conditions. In other cases there was a universal scarlatiniform eruption from a toxic source. That these eruptions represented more than a symptom complex, the speaker said he could not believe, and he did not think that we could hope to arrive at any definite grouping of these multi-form dermatoses, which presented only one feature in common, namely, dermatitis.

Dr. A. RAVOGLI said the character of the exfoliation or desquamation was an important factor in distinguishing between the various types of exfoliative dermatitis. He recalled one case of dermatitis exfoliativa neonatorum in a child that was perfectly healthy at birth. Shortly afterwards it developed a form of desquamative eruption, and when it was taken to the hospital, in an almost dying condition, the epidermis was peeling off in massive shreds. In that instance there was no doubt that the exfoliation was due to an inflammatory process resulting from a staphylococcic infection. It was subsequently learned that the child's mother had been confined by a midwife who was suffering at the time from a bullous dermatitis of the thumb, and had infected two other children in a similar manner, one of whom died. In such a case as this, the speaker said, the bullous eruption should not be confused with a pemphigoid affection.

Concerning the other forms of these desquamations, Dr. Ravogli said he agreed with Dr. Pusey, that pityriasis rubra pilaris was a definite type, and identical with lichen ruber acuminatus of Hebra. In these cases we have to deal with an affection of the horny layer, especially inside of the follicles, which produced the continuous exfoliation. In a case of pityriasis rubra pilaris which was under his observation, there was free desquamation of the upper and lower extremities, although some improvement had followed the hypodermic use of cacodylic acid.

In reference to the pityriasis rubra of Hebra, he had never seen an example of it in this country. In one case seen at Hebra's clinic, attention was especially called to the desquamation, and the atrophic (*abgespannt*) appearance of the skin. That patient died of tuberculosis, and several French writers had referred to this disease as one of the eruptions following tuberculosis or tubercular infections.

Dr. JAY F. SCHAMBERG said that in the exfoliative types of dermatitis we were dealing with certain objective clinical phenomena, which might be produced by a great multitude of causes, both external and internal. We designated the condition dermatitis exfoliativa if a generalized redness of the body, followed by exfoliation of the epithelium in large areas existed. There were various types of this disease, including an acute type, which ran its course in from four to six weeks. There were also chronic types, of which the pityriasis rubra of Hebra was an example, in which, in addition to the redness and scaling, there was a gradual compromising of the patient's general health.

Dr. Schamberg said it appeared to him that in all the acute cases, the cause of the eruption must be some toxic substance, using the term in its most catholic sense, which acted either from without, as in the case of chrysarobin, or from within, as in the case of quinine or antipyrin; or it might be the result of some direct infectious principle, as in scarlet fever, or of some autotoxic poison, which was apparently responsible for some of the recurrent and periodical cases. The speaker called particular attention to the resemblance between acute exfoliative dermatitis and the exfoliation which occurred in scarlet fever, and he raised the query whether we had any right to draw any distinction between the scarlatiniform erythemas and the acute types of dermatitis exfoliativa. Was there any difference between the two, save that of the intensity of the process? In scarlet fever, every grade of the eruption was observed, from the faintest erythema to the most intense, with profuse desquamation in the form of large epidermal casts. In corroboration of this statement, Dr. Schamberg exhibited some photographs showing profuse exfoliation in scarlet fever. Also a photograph showing free exfoliation occurring during convalescence from smallpox, which was characterized not only by the loss of large areas of epidermis, but also by the loss of hair and nails. It was not unusual, the speaker said, to have a septic erythema followed by extensive scaling, during the decrustation stage of smallpox. In another of the photographs shown, there was an acute exfoliative dermatitis occurring after a severe fright; the patient was a young girl, and was frightened at a fire in an adjoining building. Shortly afterwards she developed this eruption, which ran the course of an exfoliative dermatitis.

Dr. JOSEPH GRINDON said he agreed entirely with Dr. Schamberg. It seemed to him that to call all forms of exfoliative dermatitis by one name would not be a step in the direction of simplicity, but, on the contrary, would merely complicate the subject. It was just as necessary to take the course of the disease into consideration as the subjective symptoms.

As to the cases of dermatitis exfoliativa neonatorum reported by Dr. Foster, Dr. Grindon was inclined to believe that some of them, at least, were examples of impetigo contagiosa. Too much importance as a symptom was attached to the formation of bullæ. Impetigo contagiosa of the circumscribed type frequently showed very little vesication. It was possible that some of Dr. Foster's cases were due to the same etiologic factor as impetigo contagiosa. Fatal cases of both impetigo contagiosa and dermatitis exfoliativa in infancy (Ritter), were well known. The speaker had seen cases of so-called pemphigus neonatorum which proved to be impetigo contagiosa.

Pertinent to the subject of pityriasis rubra, Dr. Grindon mentioned the case of a woman of seventy years, who came under his observation four years ago. She was of a large, muscular build, and had enjoyed ex-

ceptionally good health all her life. Three months before she had developed a red, scaly eruption on the legs, which rapidly spread over the entire body, with profuse desquamation. The exposed surfaces were red, glistening and violaceous, and she complained of a burning pain, especially about the hands. She failed to improve under treatment, and died in the course of a few weeks in a condition of coma, which was regarded as uræmic. The case was apparently one of pityriasis rubra of the Hebra type.

Dr. HERMANN G. KLOTZ mentioned a case of dermatitis exfoliativa neonatorum in which the child was born with the characteristic eruption. In this instance, the mother had previously given birth to a child with the same disease. The speaker said it was very hard to explain in these cases, how an infection should have taken place. Both children died within a few days after birth. There was no bullæ formation in either case.

Dr. GEORGE T. JACKSON in referring to Dr. Foster's experience with carbolic acid in the treatment of dermatitis exfoliativa, said that he had experimented with the drug in psoriasis, and he expected shortly to report the result of his experience with it. The statements regarding the dose of carbolic acid were very conflicting. Personally, he had given from twelve to sixteen grains daily without any injurious effects, and some of his cases of psoriasis had done remarkably well under its administration. He began with a dose of one grain, in glycerine and peppermint water, repeated three times daily, and gradually increased.

Dr. HENRY W. STELWAGON said that while the objective features of the various exfoliativa dermatites were much the same, the etiological factors that gave rise to them differed widely, and were oftentimes very obscure. One could not judge from the form of the eruption what the etiological factor was. The etiologic factor might differ in different cases, and again, the same specific poison might produce different forms of the eruption. Thus, iodoform and chrysarobin might give rise to extremely severe and sometimes chronic forms of exfoliation; other cases were of streptococcic origin, while the epidemic forms were probably traceable to certain toxins or ptomaines.

Dr. Stelwagon said he had been inclined to place all these cases under one head, with certain qualifying terms, until we knew more about the subject.

In regard to the internal use of carbolic acid, the speaker said he considered a dose of half a grain practically inert. Personally, he had given the drug in a solution of glycerine and water, in doses as high as twenty to thirty grains daily, without observing any injurious effects. In connection with its administration, it was necessary to watch the urine, and withhold the drug if the urine became cloudy, or if the patient complained of dizziness.

Dr. JAMES C. WHITE said he thought a distinction should be drawn between the various types of dermatitis exfoliativa, particularly from a prognostic standpoint. For example, there was the acute fugitive exfoliative type, often recurrent, and various other forms, including those produced by external application of drugs, etc., which might be confidently predicted to end in recovery. There was another type, however, marked by infiltration and small branny scale formation, which would quite surely terminate fatally. The latter type was rare.

Dr. FRANK H. MONTGOMERY said it was difficult for him to understand how anyone who had studied a case of the Hebra type of pityriasis rubra, could confuse it with any other form of exfoliative dermatitis, as it presented such marked clinical characteristics. The absence of infiltration, and of itching, the peculiar cyanotic appearance, the abundant exfoliation, the marked sensitiveness to cold, and the progressive cachexia, were all characteristic of that disease. It was true that cachexia sometimes appeared in the ordinary forms of exfoliative dermatitis, but not of the pronounced form that was seen in the Hebra type.

Dr. S. POLLITZER said the many types of the acute and chronic scaling dermatitides probably included many different diseases—certainly that was true of the acute form. Among the chronic forms there was one that stood out as something definite, and that was the Hebra type. The speaker said he had seen two instances of this rare disease in this country. One was that of a man, about forty years old, in whom the disease proved fatal in the course of three or four years. The other was a man who was nearly seventy years old when he acquired the disease, and died in the course of a year, with marked atrophy of the skin.

Dr. Pollitzer said he thought the Association was indebted to Dr. Foster for his valuable contribution to this subject, but it would have been under still greater obligations if he had simply narrated the histories of his twelve cases of dermatitis exfoliativa without attempting to group them. The report of cases was what was needed; the ultimate arrangement of these various types was still to be made.

In closing, Dr. Pollitzer expressed his surprise at the probably inadvertant inclusion of pityriasis rubra pilaris in this class of diseases. It was, of course, an entirely distinct affection, and had nothing whatever to do with dermatitis exfoliativa.

Dr. THOMAS C. GILCHRIST, in speaking of the various causes of these exfoliating dermatides, referred to that type produced by mercury, erythema scarlatiniforme, of which he had seen a number of instances. The skin manifestations in these cases were sometimes accompanied by the presence of casts in the urine, thereby demonstrating an exfoliation in the tubules of the kidneys, which apparently corresponded to the exfoliation of the skin. Among other etiological factors, he mentioned the streptococcus and various toxins, which could not always be traced. In a case

seen at the University of Maryland, the patient was a woman with a typical rash of pityriasis rubra, with extensive exfoliation, including the loss of nails and hair, and the subsequent development of Raynaud's disease in the right hand and left foot. The fingers and toes became gangrenous, eventually necessitating amputation. The gangrene was probably due to endarteritis. Two or three years after the amputations, the woman was still alive. The blood and urine were repeatedly examined with negative results, and the real cause of her lesions was never discovered.

Dr. Gilchrist also referred to a severe case of erythema scarlatini-forme induced by mercury, where the external application of the drug was continued without suspecting that it was the cause of the trouble. The patient subsequently developed a double pneumonia, which was regarded as an expression of the mercurial poisoning. There was also an albuminuria from apparently the same cause.

In certain varieties of the exfoliating dermatides, Dr. Gilchrist said, the cause of the eruption could not be ascertained.

The President, Dr. Hartzell, showed the photograph of a case which he saw by accident in the Philadelphia Hospital. The patient was a woman who had been treated for what was regarded as erysipelas for five or six weeks. The case proved to be one of generalized exfoliative dermatitis, and made a complete recovery in the course of a few months. The cause of the eruption was not ascertained.

Dr. FOSTER, in closing the discussion, said that while the remarks of the speakers had been very interesting, they had not solved to his satisfaction, the problem of classification of these conditions, and he would continue to include such cases as he had reported in his paper under the general head of dermatitis exfoliativa until we had further light on the subject. He did not like the name pityriasis, as applied to this disease. Pityriasis rubra pilaris he looked upon as an entirely distinct affection. Exfoliative dermatitis meant something; it meant an inflammatory disease of the skin, accompanied by scaling. Dr. White had stated that certain of these cases would end fatally, and if they died they were cases of Hebra's pityriasis rubra. Personally, Dr. Foster said, he did not regard that as a good basis upon which to classify these eruptions. The same was true of scarlet fever and other diseases; one could not say at the beginning whether the patients would get well or not. In some of the cases he had reported in his paper, the patients were expected to die, but on the contrary, they recovered. If they had ended fatally, he supposed they would have been called pityriasis rubra of the Hebra type. We were not yet in a position to distinguish between these cases, and as long as a definite diagnosis was impossible, it was preferable, the speaker thought, to classify them under a general head.

THE SIGNIFICANCE OF INDICAN IN THE URINE OF THOSE AFFLICTED WITH CERTAIN DISEASES OF THE SKIN.

By M. F. ENGMAN, M. D., St. Louis.

FOR some years I have been interested in the study of auto-toxicosis in relation to diseases of the skin, however, I could never convince myself of the value of autointoxication as a factor in the production of certain diseases of the skin, unless there were some clinical or chemical symptoms of autoinfection. It has been the custom—and we see it in various text-books (in fact, in the majority of text-books and monographs)—to shoulder upon this factor of autointoxication, a number of conditions of which there is no proof of the causative relationship, either chemical or clinical.

It is true, we have in children and in adults, acute and chronic pathological conditions caused by autointoxication from the alimentary canal, in which there are no cutaneous symptoms whatsoever, with the production of high temperature and alimentary symptoms of every character, accompanied or unaccompanied by disturbances of the epithelium of the kidney; nevertheless a number of cutaneous eruptions are attributed to autointoxication, in which there are no discernible manifestations, other than the skin symptoms.

However, there are certain diseases of the skin which are accompanied by metabolic symptoms of autointoxication. Two of these I have had the good fortune to study rather closely, namely, pompholyx and dermatitis herpetiformis. In the *Medical Review*, November 11, 1889, I published some observations upon the occurrence of pompholyx in those affected with intestinal intoxication accompanied by marked indicanuria. In this connection, my conclusions at that time—and they have not changed from subsequent study—were as follows:

“Pompholyx is a relapsing disease, recurring once or several times a year, in many cases, for several years. This may often be caused by a reinfection each time, or an awakening of an old infection, when malaria is the excitant, as I believe the plasmodia protect themselves in the system and internal organs in chronic infection.

When the disease is due to intestinal toxemia, this relapsing can easily be explained by the usual irregular course of that condition. Often the fall and spring are the seasons for bowel derangement and new sources of toxemia, thus explaining the frequency of relapses at this time. In conclusion, I wish to assert that I do not consider that all cases of pompholyx are due to toxemia (intestinal, malarial, or from other sources), but merely believe that condition to be an etiologic factor in a number of cases."

Later, my attention was attracted to the constant occurrence of indican in the urine of a case of chronic vesico-bullous dermatitis herpetiformis, which directed my studies in this regard to all cases of dermatitis herpetiformis coming under my observations. The result of these observations were published in the *JOURNAL OF CUTANEOUS DISEASES*, May, 1906, under the title of "A Preliminary Note upon the Presence of Indican in the Urine of those Afflicted with Dermatitis Herpetiformis."

I was greatly interested in the article of Dr. James C. Johnston upon "The Evidence of the Existence of an Autotoxic Factor in the Production of Bullous Diseases," which appeared in the *British Medical Journal*, October 6, 1906. In this interesting and most excellent dissertation by Dr. Johnston, he refers to my work upon indican in dermatitis herpetiformis, but unfortunately has misunderstood the purport of the communication, for he says (page 841):

"Engman has recently reported a series of cases of dermatitis herpetiformis, in which he found indicanuria, but he failed to attach any significance to it as an indication of autointoxication. Like the French, he seems content to add it with eosinophilia to the list of symptoms of Duhning's disease."

As Dr. Johnston has misunderstood the whole trend of the paper referred to, I take the liberty of quoting the following passages from it. On page 217, it runs as follows:

"The cause of dermatitis herpetiformis is not known. It is attributed to nerve-shock, some obscure derangement of the nervous system, toxemia, disease of the bone marrow, etc. It is not the writer's intention here to enter upon a theoretical discussion of the etiology of dermatitis herpetiformis, yet if his finding of indicanuria is confirmed by further research, it seems possible that this fact might point to its principal etiological factor, namely, (1) a toxemia generated through putrefactive or other conditions in the intestines (generally the small intestines); (2) the invasion of the body by some animal parasite, the class of diseases in which it is most common

to find the co-existent occurrence of indicanuria and eosinophilia. A thorough study of the stools of these patients should be made, which has not been done in any of the cases here reported."

"That it is highly probable that dermatitis herpetiformis may be due to various toxic bodies acting upon one inclined to a reaction of that peculiar character . . ."

In dealing with autointoxication as a factor in all diseases, we must take into consideration the personal equation of the individual. We learn from the study of drug eruptions, that a certain drug will cause in different individuals, eruptions of different characters, ranging from an erythema to papular, pustular, vesicular, bullous, or nodular lesions. In autointoxication produced by a break in the chain of normal metabolism, we have various poisonous bodies circulating in the system, which might produce—as in drug eruptions—in one individual one chain of symptoms, and in another a condition of an entirely different character.

Indican in excess in the urine, when not produced by confined pus cavities, or chronic suppurating wounds, is undoubtedly a manifestation of intestinal putrefaction. This condition may exist for some time without the appearance of apparent pathological changes, in certain individuals who are particularly resistant to the poisons of which this reaction is an indication. On the other side, there are no doubt, individuals who are particularly susceptible, and react violently to the poisons generated by autointoxication. This reaction may occur in the form of various so-called cutaneous diseases, as an erythematous, vesicular, papular or bullous condition.

It seems to me that not enough stress is laid upon drug eruptions in the study of cutaneous disorders. In eruptions produced by a known drug or chemical, we have the principal etiological factor at our command, and it is through the analogy to be drawn between drug eruptions and certain diseases of the skin of obscure origin, that we may look for future elucidation, especially of this question of autointoxication.

Indicanuria, phosphaturia, oxaluria, albuminuria, glycosuria, and various other urinary symptoms are significant of systemic intoxication, and should be considered when found coincident with cutaneous disorders.

I write this short communication to correct the misunderstanding which Dr. Johnston seemed to have of my position in the relationship between indican and autointoxication as a causative factor in the production of dermatitis herpetiformis.

SOCIETY TRANSACTIONS

THE NEW YORK DERMATOLOGICAL SOCIETY.

347th Regular Meeting, January 22, 1907.

Dr. MEWBORN, President, in the chair.

Case for Diagnosis: Presented by Dr. WHITEHOUSE.

August J., an Italian, twenty-two years of age, shoemaker by trade, presents an eruption on the back and ulnar border of the right hand which began ten years ago from an injury with shoemaker's thread. It was first a boil-like lesion which he punctured with his shoemaker's awl. Soon after, another one appeared near this, which he opened in the same manner. They never healed (?), but others developed from time to time, and the area between, covering a surface nearly as large as the palm of the hand, became inflamed and has remained so to the present time, with slight improvement in summer. Over the lower end of the ulnar is a scar where one lesion was removed about two years ago. The affected region presents a dull red, inflammatory surface, slightly swollen, and throughout this area are several inflammatory nodules breaking down in the center and capped by a scab. At present only clear serum can be expressed from these, and the patient states that the discharge has always been of this character. There is little or no pain or tenderness. There is no history of tuberculosis in the family, and the patient denies syphilis, although four months ago he states that he suddenly lost his sight in the left eye, without any premonitory symptoms. This has improved under the use of drops given at the Eye and Ear Dispensary—presumably iodide of potash.

Dr. FORDYCE also agreed in thinking the case one of syphilis. It was sometimes, however, exceedingly difficult to differentiate some types of tuberculosis of the skin from syphilis. In such cases a microscopic examination may give us sufficient data to decide between one or the other affection. He referred to a case of this kind which had been sent to him by a surgeon, where a differential diagnosis between tuberculosis and syphilis could only be determined in this manner.

Dr. BRONSON said that it was very strange that for ten years a syphilitic lesion should have remained without showing anywhere the characteristic serpiginous appearance. The multiplicity of the lesions would suggest syphilis, but there was an entire lack of uniformity in them, some of the lesions being large and some very tiny, and without definite arrangement.

Dr. KLOTZ agreed with Dr. Bronson that the condition had a very unusual appearance for so late a syphilide of such long duration. It might be a mixed infection of syphilis and tuberculosis.

DR. TAYLOR thought that it was largely a matter of speculation.

DR. SHERWELL inquired whether the case had been treated specifically, and upon Dr. Whitehouse's replying that he did not know, Dr. Sherwell said that he was not prepared to make a diagnosis, but would like to see the effect of specific treatment. Antisyphilitic treatment sometimes produces great changes on other than syphilitic lesions, but if it yielded promptly and satisfactorily the subject would be cleared up somewhat.

DR. WHITEHOUSE said that when he first saw the patient the condition presented a very different appearance from that of to-night, and suggested tuberculosis of some kind. The indolent character of the nodules without breaking down for a period of 10 years made him hesitate before making a diagnosis. The man was firm in his statement of the duration of the trouble. To-night, however, the lesions are suppurating and there seems no doubt of the diagnosis. He had taken a biopsy and had had smears made, but with the history the patient gives to-night, of sudden eye trouble four months ago which improved under iodide of potash, and with the present appearance of the hand it seems fairly certain that it is a case of tubercular syphilide. He would put the patient under mixed treatment, and report on him at the next meeting. This is another instance of how little credence can be placed upon a history, for it is pretty certain, if this is syphilis, that it could not have remained for 10 years without progressing further and breaking down.

A Case of Diffuse Miliary Papular Syphilide with Tumors in Lumbar and Mammary Region (Gummata?). Presented by Dr. MEWBORN.

The patient is a native of Ireland, thirty-one years of age, and a gardener by occupation. Nothing in the way of venereal diseases until a year ago, when he contracted a number of venereal ulcers under the fore-skin with marked oedema and phimosis. The inguinal glands of both sides became enlarged and tender, but did not suppurate. Rash of secondary syphilis came out five or six weeks later accompanied by cephalalgia, enlarged tonsils, etc. Was treated with inunctions until rash disappeared. In November last the present rash came out in small grouped miliary papules on extensor and flexor surfaces of arms and legs, abdomen and neck. front and sides of chest. Three weeks ago a swelling the size of a pigeon's egg appeared in the left mammary region near the sternum. This tumor has enlarged to the size of a hen's egg, is not particularly tender or painful, no redness, but fluctuating. Aspiration at the Dispensary by one of the surgeons failed to find fluid. Two similar small tumors were observed on the back low down in the lumbar region.

DR. FORDYCE believed that the tumors were not connected with the syphilitic infection. It was not possible, however, to absolutely exclude syphilis as an etiological factor without further observation, as cases of interstitial myositis had been observed in the early stages of that disease.

¹ The next day after presenting the case the tumor on the breast was incised and several drams of fluid and cheesy-looking pus was evacuated. The growth was apparently a broken down gumma. The two tumors in the lumbar region were lipomata. A. D. M.

DR. MORROW said that the tumors formed the only unique and interesting feature of the case, but he did not think they had any connection with the syphilis. He had seen many thousands of cases of syphilis, but had never seen a coincidence of this kind. What was the nature of the tumors he did not know.

DR. SHERWELL also suggested as to the tumor that it might be some myositic development. It seemed striated, not lobular as in lipomas. If it were myoma it would go down spontaneously or under the specific treatment. He did not think it was malignant.

DR. JACKSON said that he did not know what the tumors were. There was no doubt that the eruption was a syphilide. Though the books give the absence of itching in syphilitic eruptions as a point in differential diagnosis, in reality the pustular and scaly papular syphilides often itch.

DR. TAYLOR said that the skin lesions were undoubtedly large and small miliary papular syphilides, and judging from the ensemble he would think that they were one to two years old. The nature of the swellings he could not determine from the data presented, but treatment would help to establish a diagnosis. If this should prove that they are syphilitic infiltrations, they are certainly unusually early. He had seen such infiltrations in late syphilis, but not at so early a stage. The best that could be done was to test the diagnosis by treatment.

DR. KLOTZ said that he agreed with Dr. Morrow that the tumors had nothing to do with the syphilis. They impressed him as being diffuse lipomata. The location on the back was not uncommon for lipomata. If the swelling over the ribs was syphilitic, he would expect it to be sensitive to touch or pressure, as it would most probably start from the periosteum. Gummatous periostitis of the ribs might occur quite early in syphilis.

DR. FOX thought that Dr. Taylor dated the lesion too far back. He himself had never seen such symmetrical lesions occurring after the second year, and rarely in the second. As to the tumors, while they might in late syphilis be regarded as syphilitic, one does not see tumors developing at this stage; but if they disappear under antisymphilitic treatment, he would regard them as syphilitic in character, in spite of their occurring so early.

DR. TAYLOR said that he had only spoken of the chronology in a general way. He had noticed that the larger lesions were developed about the buttocks. Over at the Island he had often seen cases of miliary syphilides complicated with mild attacks of scabies producing an eruption. It looks here as if some irritant had been applied to the skin about the buttocks particularly, whereas upon the buttocks they were commonplace papules. What he wished to emphasize was that judging from the appearance of the lesions, not the tumors, two years would probably cover the time.

DR. ROBINSON said that he agreed with the diagnosis of syphilide. The number of the lesions, the arrangement, and the manner of forming were quite characteristic.

DR. MORROW, referring to Dr. Fox's statement as to the non-symmetrical character of the late lesions, said that we frequently find exceptions to that. He himself had seen many cases of late tubercular lesions which were perfectly symmetrical, and had published illustrations of such cases.

DR. FOX said that he had never seen the eruption so copious and symmetrical, not symmetrical alone after the second year.

DR. MORROW said that he had that afternoon seen a man who has had syphilis for 16 years. At the present time he has a number of small lesions the size of a three-cent piece, very superficial and of the late secondary type. They were not symmetrical but bilateral, that is, they did not occupy precisely analogous positions on both sides. There were about a dozen lesions of this kind. We should expect to find a syphilide of this character as late as three years, but not 16 years.

Chancre of the Gums. Presented by Dr. MEWBORN.

J. S., native of England, occupation bartender, thirty-two years of age. Patient has the habit of picking his teeth with a pin, fingernail or anything handy, and may have injured the gum just above the upper central incisors. He admits kissing a woman who had a sore mouth about two months ago, but he only admits having observed that his gums were sore about twenty days ago. Upon examination ten days ago there was an irregular triangular ulcer at the margin of the gums above the central incisors, the ulceration extended between the teeth and formed a smaller ulcer on the palatal surface of the gums. The ulcer had a thick fibrinous membrane which was removed with peroxide of hydrogen and smears were made from the raw surface and stained with various spirochaetæ stains, but without finding the sp. pallida. The submaxillary glands on both sides are enlarged, especially one at the angle of the jaw on the right side, and the patient had that peculiar pallid color so often observed in syphilitics before treatment has been commenced. The characteristic roseola came out a few days ago and is well marked as can be observed.

Dr. TAYLOR said there was a great variety of appearance in such cases, sometimes a sort of diphtheroid covering, sometimes papillomatous, sometimes chancrous. This seemed to be a typical case, but he could recall a number of them.

Dr. WHITEHOUSE agreed with the diagnosis of chancre of the gum. As Dr. Taylor had said, chancres in this locality vary greatly in appearance. Previous to this he had seen but one chancre of the gum, in a boy 14 years of age, and this had an entirely different appearance, being more papillomatous, larger, and more infiltrated. This one had a diphtheroid cover and is flat and ill-defined. The large gland under the ramus of the jaw, together with the presence of the roseola, point conclusively to this diagnosis; besides one would not expect to find a gummatous lesion on the gum at this stage.

Dr. TAYLOR said that within two years he had seen a case of chancre just inside the incisor teeth that was as large as a cherry, and two cases where it was just below the wisdom teeth. These were very interesting cases. The one just behind the teeth was almost as hard as cartilage and subsided under treatment. It was fungoid on the surface. Those below the wisdom tooth were diphtheroid in character and thickness, and hyperplastic also.

Dr. KLOTZ inquired whether any swollen glands could be found in the neighborhood.

Dr. MEWBORN said that the question of the satellite glands was of interest in every case of syphilis, as you can sometimes locate the point of inoculation by hunting for the glands. Perhaps Dr. Morrow would recall the case of a woman with a syphilitic alopecia simulating alopecia areata treated at the N. Y. Hospital Dispensary. The axillary glands on the right side were enlarged. The history was that the trouble started with a hangnail on the right index finger. Although every sign of infiltration or induration has disappeared, it is very probable that that was the point of inoculation.

Chronic Sycosis with Spontaneous Cicatrization of the Cheek. Presented by Dr. Fox.

The patient was a man, forty-five years of age, having an extensive involvement of the beard with a long-standing affection of the hair follicles which seemed to progress by the circumference, leaving depressed cicatricial tissue. The affection bore some resemblance to what had been called lupoid sycosis.

Dr. WHITEHOUSE said that he did not question the diagnosis. The right cheek in particular seemed typical of coccogenic sycosis, but the sharp definition and spreading character of the patch on the left cheek was very peculiar. With the smooth and extensive scar behind, and advance forward—although as Dr. Fox says it advances in pustules—it would suggest the so-called lupoid sycosis.

Dr. JACKSON thought there was no doubt about the case being one of sycosis. When he first saw the patient at the Vanderbilt Clinic he had not washed up and shaved as he had to-night. There were then more characteristic pustules in evidence, and it did not suggest lupus. As against lupus it is to be noted that there are no recurrent tubercles in the scar on the left side, and no outlying tubercles. On the other cheek and on the upper lip the conditions are those of an ordinary chronic sycosis, and there is no reason to doubt the oneness of the whole eruption.

Dr. BRONSON said that the scar did not indicate lupus, in which disease the scar was not apt to be so smooth as in this case. There might be some tuberculosis mixed with it, but there was no doubt about the presence of sycosis.

Dr. FORDYCE referred to the presence of scar formation, which he said was not a usual occurrence in sycosis vulgaris. He had seen it, however, in a number of instances and the question occurred to him whether in such cases we might not have to do with another infection.

Dr. ROBINSON said that he had treated and watched carefully three cases very similar to this, the first one thirty years ago. From this one he had taken a piece for examination, the first piece taken, he believes, out of a living subject for the study of a skin disease. The course of the case was very similar to this one. The other cases were not so well marked. This case corresponds exactly with the lupoid sycosis of Milton. They are not cases of lupus. That they were not cases of lupus was demonstrated by the ease with which they were cured even in those days without the rays. The last case got well very quickly under the X-ray—probably 20 or 25 exposures. This case had a great deal of scarring and the disease covered the whole bearded part of face. The streptococcus organism probably travels through the corium and not by the cutaneous surface. You do not, as a rule, find acute suppurative lesions. The nature of the ground is evidently very favorable for the streptococcus, as shown by the chronicity of the disease and rebelliousness to treatment.

Dr. Fox confirmed Dr. Jackson's statement that if the man had been seen before he was washed and shaved, there would have been no question of the diagnosis of sycosis, and he doubted if lupus would have been thought of. It might be called lupoid sycosis, for many cases have the purplish red appearance similar to lupus. He differed with Dr. Fordyce in regard to the frequency of cicatrization. In cases of chronic sycosis this cicatrization on one or both cheeks is very common.

Dr. JOHNSTON inquired whether it occurred in such large patches.

Dr. Fox replied in the negative. He had photographs of a number of such cases where there was a complete destruction of the hair follicles, showing a smooth patch surrounded by the inflammatory processes. In the ordinary acute

sycosis of a few months' or a year's standing it would be scattered over the cheek, but in cases of long standing there is apt to be a sharply defined margin.

In regard to treatment, he held that X-ray treatment does little good and often harm in many diseases of the skin, but that it is extremely beneficial in sycosis. He had one or two cases under treatment which had been tested by various methods. One case had improved rapidly at first and had a permanent destruction of the hair. The patient seemed almost well. While under the X-ray treatment the disease spread beyond the original site. This patient had been treated for some time with strong lotio alba, which has sometimes cured cases of lupus erythematosus, and this did some good. Strong chrysarobin ointment and other applications had been tried, some of which did a little good, but persistent epilation with the forceps produced the best results. On the other side of the face, however, where the X-ray was used the improvement was more marked. The object of treatment is to produce complete epilation, and the X-ray does this more quickly than the forceps, it produces a more beneficial effect, and tends to cure the disease in a remarkably short time.

Dr. SHERWELL, referring to Dr. Fox's statement in regard to the beneficial effect of lotio alba upon lupus erythematosus and these sycotic conditions, said that he had had, some time ago, a case of obstinate nonparasitic sycosis which had been treated by the most distinguished men abroad for 18 months without effect, and had gotten well under lotio alba and some constitutional treatment, and remains well to-day. He also had another obstinate case which was improving markedly under this same treatment. This patient had previously been to two or three of the clinics here, and had been X-rayed with no result, or with a bad result for the time, besides epilation caustics, curettage, etc.

Erythema Multiforme Bullosum; Treated with Antipyrin. Reported
by Dr. BRONSON.

Dr. Bronson referred to a case presented at two previous meetings in which at different times the appearances were those of erythema multiforme bullosum, dermatitis herpetiformis, and pemphigus, and for which antipyrin had been suggested as a remedy by one of the members (Dr. Robinson), and reported that though given a fair trial this remedy had done no good. On the other hand, in another more recent case seen at the City Hospital, where there was well marked, persistent, and severe erythema multiforme bullosum, under antipyrin in ten grain doses, three or four times a day, the condition had cleared up rapidly, and in two or three days the patient was well.

MANHATTAN DERMATOLOGICAL SOCIETY.

53d Regular Meeting, November 2d, 1906.

Dr. Robert Abrahams, Chairman.

Granuloma of the Lip. By Dr. B. F. Ochs.

Patient, an adult male, had a lesion precisely similar to that now present and at the same spot, two years ago, and was presented then to this society. It was excised and its base cauterized with silver nitrate, and nothing more appeared at the spot until three months ago. Then began what was apparently a localized seborrhœal eczema of the lip, fissures developed, becoming a superficial ulceration covered with exuberant granulations. The margins of the ulceration were slightly indurated, and there was a question as to the beginning of epitheliomatous degeneration.

Dr. GOTTHEIL said that the tumor excised two years ago was found to be granulation tissue pure and simple, with nothing to suggest either degenerative changes in the epithelium or a syphilitic infiltration. The present lesion was exactly like that of two years ago, and strikingly resembles the exuberant raspberry-like granulation mass that is not uncommon after ineffective vaccinations. It was probably an ordinary granuloma developed in a labial fissure from irritation, and was curable by curetting or excision, followed by cauterization of the base.

Paget's Disease. By Dr. R. ABRAHAMSON.

In this patient, aged forty-five, the affection began four years ago, with a small nodule in the nipple of the right breast, for which the breast was removed. Four months after the operation lesions similar to the first ones appeared in the left nipple, and have been progressing ever since. At the present time the entire left breast is hard, enlarged and tender; the surface of both nipple and areola is ulcerated; there are many nodules of varying size and hardness scattered through the entire organ and there are similar nodules over the sternum, and in the pectoral and axillary regions. A remarkable feature of the case is the apparent entire absence of axillary adenopathy on the left side, in spite of the widespread infiltration of the tissues.

The case had undoubtedly begun in both breasts as a typical Paget's disease of the nipples; but in its present condition was regarded as a true nodular carcinoma of the breast, with the site of the original nipple lesion still involved. The case illustrated the ultimate result when superficial epithelioma of the nipple are neglected.

Dermatitis Medicamentosa: Two Cases. By Dr. W. S. GOTTHEIL.

The first case, a male of twenty-five, presenting a general morbilliform rash involving most of the body with the exception of the face, the hands and feet. There were no febrile, catarrhal, or general symptoms; the rash had been present about a week. After the diagnosis was made it was ascertained that patient was suffering from an acute gonorrhœa, for which he had been getting both internal and local medication. Presented as a case of copaiba erythema. Dr. Oulmann had seen the case a few days ago in another institution, and had made a similar diagnosis. Dr. Bleiman had seen it at still another place a week ago, when the eruption was beginning; the patient then had phthiriasis pubis, and had been using mercurial ointment over a large part of his body. He had regarded this as the cause of the eruption. The persistence of the eruption so long after the possible external exciting cause had been discontinued now led him to believe that the exanthem was of internal origin and due to the copaiba.

The second patient was a male of thirty-six, with a very fine, closely studded, papulo-vesicular eruption of the left thigh and leg. In its physical features the eruption resembled a dermatitis venenata very closely; but its location, unilaterality, etc., led the reporter to look for a local cause. This was found in an iodoform gauze dressing that had been applied to the entire leg at a dispensary for some superficial and slightly infected excoriations. Local reaction from iodoform in powder or ointment is common enough; but the skin that reacts with an acute vesicular dermatitis to the small amount of iodoform contained in the ordinary gauze must be very sensitive to the drug.

Syphiloderma Framboesioides: Two Cases. By Dr. W. S. GOTTHEIL.

Lena H., twenty-three, colored, admitted to City Hospital, October 15th, 1906. Alcoholic, cigarette smoker, dissipated. Operation for swollen cervical glands in childhood at Johns Hopkins; Laparotomy four years ago at the same hospital, reason not known; slow healing of wound and a sinus, for which latter was again operated on at the Metropolitan Hospital, N. Y., a year ago. No venereal history.

Four years ago, shortly after the laparotomy, she developed her present skin affection, itching being her subjective complaint. Has been in the City Hospital three times before, namely:

February 15th, 1904.

March 29th, 1905.

April 13th, 1905, under diagnosis of chronic eczema (some suspicion of the presence of syphilis, as shown by the treatment record; but no positive diagnosis of that infection was made, and the anti-luetic treatment was continued but a short time).

During the entire time from the end of 1903 to present date the lesions have been present, and have not changed much. They have

grown in size, and have gotten a little better at times. The eruption surrounds the entire genital region in front, forming an inverted triangle with its base one and a half inches below the navel, and its apex down on the inner surface of the thighs on each side. The lesion also extends backwards over the perineum and adjacent skin and over the intergluteal fold. Mucosæ unaffected. The eruption is a solid, somewhat hard, continuous infiltration; it is somewhat darker than the patient's dark skin, uneven and shows maceration and secretion in some places and dry seborrhœal crusts in others. Close examination, more especially at margins of the mass, shows a distinctly papulo-tubercular character to the eruption, the individual lesions being large, flattened and more or less confluent tubercles. At the upper termination of the intergluteal fold are a number of small, round, depressed scars, evidently the remains of lesions similar to those present at the fresher margins. The lip and the skin around the nares is the seat of a papular eczematous eruption; but removal of the crusts shows distinct ulceration and loss of tissue there.

Presented as a case of chronic hypertrophic syphiloderm or fram-bœsiform syphiloderm.

In the discussion the lesion on the lip and nares was acknowledged to be specific; but Dr. Pisko was inclined to regard the genital lesion as eczema marginatum, Dr. Oulmann as pemphigus vegetans, Dr. Weiss as lichen planus verrucosus. The reporter stated that eczema marginatum had been his first diagnosis, but that the marked thickening and induration, the distinct papulation at the margins and the atrophy and scarring left behind had disposed of that diagnosis. There had never been, either around the genitals or elsewhere, any pemphigoid lesions.

Lichen planus was less easy to exclude; but the absence of any characteristic lesions at the margins or elsewhere on the body and the very slight amount of pruritus were against this diagnosis. Strong points in favor of syphilis were the characteristic atrophy, the character of the peripheral lesions and the presence of an undoubted syphiloderm on the face.

(Epicrisis, Dec. 10th. Very marked and rapid improvement under 1 gr. Hg. salicylate by injection weekly, 160 grains of K. I. internally and Ungt. Hg. locally. Was almost well when she escaped from the hospital early in December.)

Case 2. Jeremiah H., sixty-nine, Lebanon Hospital, October 10th, 1906. Came for a small sore lump on his lip that had been present one month. On the left lower lip was a raised and slightly warty excrescence, oblong and an inch in length. On the upper lip opposite this was a smaller similar lesion surrounded by an irregular, slightly hardened and ill-defined margin-like band. Both lesions extended from the lips into the buccal mucosæ; and on the latter there was distinct evidence of leucoplastic changes near the tumors. No definite history was obtainable as to the time of appearance of these lesions, or of a group of papules in the left naso-labial fold with a moist and oozing surface. No

other dermal lesion on inspection; syphilis denied. Was given a local placebo and watched.

During the next two weeks no special change in lesions, save some increase in size of those of the lip and flattening out of the naso-labial papules.

October 25th, complains of trouble at the anus, where he says he had a boil a year ago. Along the left margin of the anus was found an exuberant mass extending in a semicircular shape one inch from the edge. The mass is dry and apparently papular; at the anal ring itself, however, the lesions are moist and look like hypertrophic papules.

Tuberculosis verrucosa naturally suggests itself, the anal region being a favorite site for it. The lesions at the anal margin, however, are characteristically luetic and so also are those of the naso-labial fold.

The leucoplasia, of course, in the light of our present knowledge has no definite significance alone; but together with the other lesions it serves to confirm the diagnosis of syphilis. Presented as a case of hypertrophic tertiary tubercular syphiloderm.

Case for Diagnosis. By Dr. GEYSER.

Female, adult, sent to clinic with a diagnosis of scleroderma. Four years ago patches of hardened skin showed themselves on different parts of the body; they varied in size, some being quite minute, whilst others were as large as the palm of the hand. From time to time new patches have appeared; and, though many different kinds of treatment have been tried, none of them were effective. The skin of affected areas was manifestly thickened and hard, though the infiltrating mass was not distinctly traceable. There was a slight brownish discoloration that renders the hardened patches quite distinguishable in good daylight. There has been no pain in the patches; only the patient complains of a peculiar crawling sensation in them, which is characteristic, and is felt even before they appear; so that the patient can predict the advent of a patch.

Five weeks ago vigorous treatment with the high-frequency current was begun. The paræsthesia was at once relieved and absorption began in the patches; so that in most of them there are now only atrophic areas of skin in the place of the sclerotic lesions.

Dr. Pisko saw this case some time ago, and then regarded it as a case of generalized scleroderma in plaques. The picture to-day was certainly an entirely different one. Dr. Gottheil could see no sclerodermatous lesions anywhere now; the history as to the persistence of the individual lesions was not plain. If, as he gathered, lesions were not permanent ones, urticaria of a very chronic type or *erytheme induré* was a more likely diagnosis than scleroderma.

A. BLEIMAN, M.D., Secy.

REVIEW
of
DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

REPORT ON PATHOLOGY.

By CHARLES J. WHITE, M. D., Boston.

Sarcoid Tuberculides. *Des sarcoides sous-cutanées. Contribution à l'étude des tuberculides ou tuberculoses atténuées de l'hypoderme.*
J. DARIER and G. ROUSY. (*Arch. de méd. expériment. et d'anat. pathol.* Jan. 1906. p. 1.)

The authors report five personally observed cases in women from 26 to 35 years of age in two of whose families tuberculosis had existed. Histologically the present cases resembled Boeck's cases of sarcoid so strongly that Darier decided to term them hypodermic sarcoid. Clinically, however, the two classes were quite dissimilar. Boeck's tumors are small, superficial dermic papules appearing on the face, shoulders and arms; while Darier's are hypodermic, ill-defined nodosities, shot to nut-sized, at times isolated, at times grouped, hard, mobile below, adherent above to a violaceous skin, indolent, and situated on the trunk, rarely on the limbs and never on the face.

Histologically, Darier found that his tumors showed inflammatory changes in the fat tissue and formations highly suggestive of tuberculous nodules. No bacilli were found. The tumors arise in the hypoderm and spread along the fat cells and adjacent blood and lymph channels. The whole picture called to mind Boeck's sarcoid, Bazin's erythema induratum and scrofulous gummata.

Experiments on the origin of the tumors revealed a general and a local reaction to the injection of tuberculin. Inoculations into guinea pigs of dead tubercle bacilli and of Auclair's serum ("chloroformobacciline") produced respectively cold abscesses and subcutaneous abscesses somewhat analogous to the tumors now under consideration.

Mast Cells in the Skin. *Ergebnisse von Untersuchungen an Mastzellen der Haut.* DR. SCHWENTER-TRACHSLER. (*Monatsh. f. Derm. u. Syph.* 15 July, 1906, p. 47.)

Schwenter defines mast cells as cells which appear in connective tissue and in blood and in which are found granules which show a strong affinity for basic anilin colors in strong contrast to the surrounding tissues. Erlich, Unna, Westphal are the names associated most prominently in our minds with the recognition and study of these cells. Bäumer proved

by experiments the propriety of Ehrlich's theory that mast cells appeared where there has been a superabundance of tissue food. Ranvier's clasmatoocytes are identical with mast cells and Marchand and Audry's work on them is noteworthy. Metschnikoff and others claim that mast cells are useful in ridding the tissues of inflammatory products and are increased in number in the peritoneum when bacteria and toxins are present. Staffel states that he has seen mast cells change into pigment cells in urticaria pigmentosa and in xeroderma pigmentosum. No one has seen the process of division in cutaneous mast cells. Their nuclei may be central or peripheral while the form and size of the cell may also vary and thus the color affinity of their granules is their only specific characteristic. Protoplasmic prolongations have been observed. Their commonest seat is in the papillary layer of the corium but Unna and also Jadassohn have observed them in the rete. Most pathologists agree that cutaneous mast cells are formed from connective tissue cells, while those of the blood arise principally in the spleen and in other lymphoid structures.

Schwenter's principal work in this painstaking investigation relates to forty-seven experiments with various staining reagents from which he makes the following deductions:

1. The addition of alcohol and alum to Unna's polychrome methylin blue enables one to observe the peculiar granules in their true relations.
4. Salt solutions which give up oxygen dissolve the mast cell granules more quickly than similar solutions without oxygen.
5. Very little alkali is needed for this purpose.
7. This action does not affect the relations of the granules.
8. The influence of reducing substances upsets the metachromatic colorability of the granules.
9. This colorability depends both upon the oxidizing power and upon the alkalinity of the oxygen-producing salts.
10. Sections fixed in concentrated alcohol give the best pictures of mast cells; formaldehyde hardening is less successful; Müller's and Flemming's solutions prevent the future staining of these cells.
11. Osmium and chromic acid soon render subsequent staining impossible, while the effect of nitric, sulphuric, and glacial acetic acid are also destructive to further work.
12. When specimens have once been hardened in concentrated alcohol, then immersion for one to two minutes in 2 per cent. sulphuric or nitric, or for two minutes in 5 per cent. glacial acetic acid, before the usual staining methods give the most brilliant results.

Pigment Question. *Beiträge zur Pigmentfrage.* DR. MEIROWSKY.
(*Monatsh. f. Prakt. Derm.* 15 Aug., 1906, p. 155.)

This is the second contribution to the subject by Meirowsky. His first paper dealt with experiments which showed that the concentrated rays of the arc light in the Finsen lamp could produce within one to two

hours distinct pigmentation in the human skin. The author now wishes to trace to its source the origin of epidermic pigment.

As a result of his further experimentation Meiworsky finds:

First, that by the irritation of the electric light the substance of the nucleoli is increased in the epidermic cells. These nucleoli enter the protoplasm and are metamorphosed into pigment granules which break up into minute particles and gather at the periphery of the cells or at the pole of the nucleus nearer to the source of light.

Second, that by the influence of the light a nucleolus is changed into a brown-pigmented ball which migrates in this form from the nucleus and dissolves into pigment granules in the protoplasm of the cells.

By such observations the author claims that epidermic pigment arises within the epidermis itself and thus differs in its origin from the coloring matters of the corium.

Meiworsky's third proposition is to determine whether the white man's cicatricial epidermis can produce pigment. Despite the denial of previous investigators, the present author, again employing strong arc-light currents, decides the question in the affirmative.

The fourth and last problem of the paper is the revelation of the origin and formation of the dermic pigment bodies.

Previous students have investigated pigmentation by the production of artificial hæmorrhage, but Meiworsky claims that this abnormal method gives rise to abnormal results. He therefore resorts again to powerful electric lights and reaches the conclusion that the pigment of the corium is of hæmatogenous origin and thus proves that dermic and epidermic coloring matters are not of common origin.

Resorption through the Skin. *Experimente über die Resorption durch die Haut.* DR. SUTTON. (*Monatsh. f. Prakt. Derm.* 15 Oct., 1906.)

Previous experiments on this subject have been done by rubbing into the skin various medicaments or by placing the skin in medicated baths, and then noting whether these substances could be recovered in the excretory glands.

Sutton rubbed into the shaved skin of guinea pigs and of white rabbits scharlach-red and fuchsin in some fifty different vehicles, including alcohol, glycerin, ether, benzine, cedar oil, xylol, acetone, anilin oil, oil of turpentine, sandal oil, linseed oil, olive oil, castor oil, goose grease, lanolin and vaselin. At the end of varying lengths of time—from fifteen minutes to sixteen hours—the skin was excised and examined microscopically.

It was seen that the coloring matters had been absorbed only through the follicles and their appendages. If cedar oil was used the medullary substance of the hair received the pigments. From these experiments Sutton found that goose grease was the most absorbable

excipient and really penetrated deeply into the pilo-sebaceous tract. Olive oil and sandal oil stood next, and cedar oil, when mixed with either of the above fats, exhibited marked powers of absorption. Vaseline, on the other hand, did not penetrate to the sebaceous glands, and lanolin was found but a short distance within the follicular opening.

Spirochaete Pallida. *Untersuchungen über Spirochaete pallida.* A.

KRAUS. (*Archiv f. Derm. u. Syph.* Vol. 82, p. 39.)

Kraus prefers the Giemsa stain to all others. In his earlier work the writer found the spirochæte only twice in nine syphilitic chancres. In his present investigations he found the organism in the smears from twenty-three out of thirty-one condylomata lata. He observed the spirochæte pallida also in the semen of men affected with secondary syphilis. In gummata, on the other hand, no spirochæte was seen. In hereditary syphilis, however, Kraus found the organism in bullæ, lungs, liver, kidney, pancreas, testicle, and thymus. For control experiments forty-eight examples of thirteen non-syphilitic diseases were examined and in every case the spirochæte refrangens was observed while the spirochæte pallida was found in none.

BOOK REVIEW.

Regional Topographical Dermatology, Elementary Manual of. By R. Sabouraud, Director of the City of Paris Dermatological Laboratory, Saint Louis Hospital. English translation by C. F. MARSHALL, 231 illustrations. Rebman Company, London and New York, 1906.

This book in the original French was reviewed in the *Journal of Cutaneous Diseases*, September, 1905, p. 423. The present volume, no doubt, will appeal to a large number of American and English readers, as the translator has succeeded admirably in presenting the clear style of Sabouraud. The illustrations which have been made quite a feature of the book are not as good as those in the French edition. While praising the work for answering a need for which it was intended, there are numerous annoying little typographic errors. For instance, the author's name is spelled wrong on pages 254, 258, and 265. Greek words spelled wrong on pages 202, 249, and 519. Page references omitted on pages 53, 367, and other places. "Arms" for "anus" on page 272. The most serious mistakes of translation, however, are wrong equivalents in prescriptions. It is rather a good idea of the translator's to give equivalents of the metric system on the basis of ordering for an ounce mixture, but even then the same relative proportion of each ingredient should be used. This he fails to do by giving wrong equivalents on pages 10, 111, 212, 499, 527, 528, 500, and other places. The student's fondness for a prescription is humored to the full, but much valuable space is taken up by needless repetition of formulæ. It might be suggested that prescriptions could be classified at the end of the book as to physiological action and reference made to them in the text by number.

"Chez la femme qui fut à 15 ans une hypertricosique atteinte de pityriasis intense," is not correctly translated by "a hypertrichotic attack of intense pityriasis" (page 214). But the difficulties of the translator are seldom appreciated, and we hope these few errors will not be noticed in considering the benefit conferred upon the English reader by the translator of Dr. Sabouraud's excellent book.

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AN INTERESTING GROUP OF CASES OF TUBERCULOUS INFECTIONS OF THE SKIN AND ONE ALLIED CASE.

By T. CASPAR GILCHRIST, of Baltimore.

Read before the Thirtieth Annual Meeting of the American Dermatological Association, Cleveland, O., May 31, June 1 and 2, 1906.

I. A CASE OF PRIMARY TUBERCULOSIS OF THE SOLE OF THE FOOT.

THE patient was a vigorous-looking young man, eighteen years of age, who had had the skin lesion for eleven years. He gave the following history: While running about bare-footed at home he stepped on an upturned pin which pierced the sole of the foot rather deeply. The lesion healed up temporarily, then very gradually broke down and a small, somewhat punched out, circular, undermined ulcer formed; other lesions slowly appeared in the neighborhood of the first eruption, until, at the time when he was first seen by the writer, thirteen small (pin-head to small pea-sized) punched-out ulcers were noted. The lesions were arranged in two groups, one situated about the center of the sole of the foot and the other near the inner border. The patient was treated for some years, previous to coming under the writer's observation, for hereditary syphilis, although no definite history could be obtained nor could any specific symptoms be noted in the patient other than the punched-out ulcers, which refused to heal under the application of any kind of ointment. One of the smaller ulcers was excised *in toto* and the sections showed microscopically typical tubercular structure. Tubercle bacilli were found in the sections which proved that the case was one of tuberculosis cutis.

An interesting point came out in the history of the case after demonstrating its tubercular nature, viz: that there was living in the same house as the patient at the time of the primary lesion a phthisical patient, who practiced bad expectorating habits, so that

the evidence seems to show that an inoculation of tubercle bacilli had taken place, most probably by means of the pin prick. The treatment consisted of total excision of both groups of ulcers; healing occurring by granulation. No recurrence took place.

In connection with this communication it is perhaps interesting to record a case of tuberculosis cutis verrucosa in a man about forty years old, who presented a typical lesion on the back of the right hand over the knuckle corresponding to the index finger. Patient had the disease three months. He was a tinsmith by trade, and the workman who sat next to him at the bench had a very bad cough and was a consumptive. The patient had a scratch over the knuckle first while working at his trade, this was followed later by a pimple, which gradually grew larger, became painful and swollen, then took on the typical character of tuberculosis verrucosa cutis, viz.: a warty papillomatous appearance, when pus could be squeezed out from between the papillæ. Tubercle bacilli were demonstrated as being present. The evidence seemed to show that the patient was inoculated by tubercle bacilli from the consumptive workman who sat next to him. Thorough curetting followed by the application of a caustic caused the lesion to disappear. No relapse occurred.

II. A CASE OF TUBERCULOUS TUMORS OF THE SKIN WITH LESIONS ON THE LOWER EXTREMITIES SIMULATING ERYTHEME INDURE SCROFULEUX IN A YOUNG NEGRO GIRL.

The patient was nine years old and applied for treatment at the Johns Hopkins Dispensary. The following history was given: Both parents, one brother and one sister alive and well; but mother's brother had tuberculosis. The patient had always had good health previous to present attack and had attended school regularly up to two months ago when the family physician advised her to stop. The duration of the disease was six months. It began as numerous small "hard lumps," which could be felt much better than seen. They all appeared about the same time. Some gradually enlarged, then softened, becoming tender to the touch, then broke down, leaving an ulcer which gradually healed. The discharge was purulent at first, then became sero-purulent. The patient complained of pain when an ulcer formed. It took about a month or so for the ulcer to heal and it left a smooth glistening surface freely movable, or an irregular pigmented cicatrix which was attached to underlying structures. Some of the lesions had broken down a number of times in the same place. The patient was fairly well nourished, slightly

anæmic, teeth well formed, cervical, axillary and epitrochlear glands were enlarged. Internal organs were all practically normal;—lungs, heart, liver, spleen, abdomen and also the joints. The examination of the blood showed slight anæmia and slight leucocytosis. There were scattered over the body and extremities twelve lesions. One very firm, rounded, deep-seated mass, finger like to the touch was situated between the spinal border of the right scapula and spine and extended parallel to the spine. It measured $8 \times 2\frac{1}{2}$ cm., and was distinctly subcutaneous, movable under the skin and also on the underlying muscle.

Another lesion similar in character to the preceding was situated in the left popliteal region just above the articulation and to the outer side. Later this tumor softened and formed a subcutaneous abscess.

A third lesion was situated on the left side of the chest on the anterior surface, between the second and third ribs and consisted of a small (1 cm. \times 1.5 cm.) firm, deep-seated nodule, the skin over it being apparently normal and freely movable. The fourth lesion, situated just below the inferior angle of the right scapula, represented a different stage. The tumor-like mass was about 7 cm. in diameter, the outer boundary could easily be outlined by palpation, and the skin over it was apparently normal and movable but the lesion was attached to underlying structures. The mass was baggy, but yet not fluctuating. There was some tenderness on palpation (Fig. 1). On the left leg near the femoral ring was another growth, in character like the preceding, but it measured 5 cm. in diameter and the skin over it was tightly stretched and of a dull red color. A sixth lesion was noted on the posterior surface of the right thigh, just above the popliteal space and it was about walnut-sized (6 \times 8 cm.), and had the character of a subcutaneous abscess, soft and fluctuating, the skin over it being very thin and reddened. The contents of this abscess was abstracted by means of a hypodermic syringe and inoculated intraperitoneally into a guinea pig. The abscess broke down and a sero-purulent discharge followed.

The seventh lesion was in the form of a tubercular dactylitis of the middle finger of the right hand at the distal phalangeal joint. The end of the finger was swollen and enlarged, dull red and slightly painful. There was a cicatrix on the dorsal surface. There was some fluctuation, and a discharge occurred once a month. Circumference was 5 cm., whereas the normal was 4 cm. The remaining lesions were in the form of scars of various sizes and ages, distributed

over the posterior and external surfaces of the left leg, also on the back of both thighs, the right forearm and back of left side just below the spine. Some scars were smooth, glistening and superficial, others were irregular, uneven, thickened, puckered, pigmented and attached to deeper structures. There was no pain during the formation or suppuration of lesions, but the cicatrization of the lesions on the thigh and legs were painful. None of the swellings were painful on pressure. The tuberculin test was given and a prompt and severe reaction followed twelve hours after, the temperature rising to 104° F. and again twenty-six hours after to 104° after dropping to normal.

Fifteen minims of pus from one of the swellings was inoculated intraperitoneally into a guinea pig, which died twenty days later. Cultures were negative. The peritoneum showed a miliary tuberculosis and scrapings showed the presence of large numbers of tubercle bacilli. The case was one of undoubted tubercular tumors of the deep subcutaneous tissue of the skin and on the legs the lesions assumed characters like that of *erytheme induré scrofuleux*, but were not markedly typical. Since none of the internal glands were involved and were all practically healthy one could hardly explain the origin of all these lesions. There may have been some internal unrecognizable focus somewhere in the body.

Not so long ago I saw a typical example of Bazin's disease in a young shop-girl fifteen years old, with a single lesion on the left leg, and it had ulcerated, forming a punched-out lesion. The patient was pale and flabby and she had a family tubercular history. The lesion was three months old and had appeared as a dull, reddish patch on which later appeared ulcers. An excised portion showed only a low form of chronic inflammation, but no characters at all of tubercular structure were present. Inoculation into a guinea-pig intraperitoneally yielded negative results and scrapings from the ulcer, after being teased and stained, showed no tubercle bacilli present.

The lesion healed up under hypophosphites internally and simple applications externally.

III. THIS WAS AN INTERESTING EXAMPLE OF A SKIN DISEASE WHICH IS CLASSED AS AN ACNE NECROTICA OR AN IMPETIGO RODENS (Devergie.)

The patient was a nurse, aged twenty years, who consulted me about lesions on the left arm. The duration was two months and the eruption was situated principally on the anterior surface of the



FIG. 1.

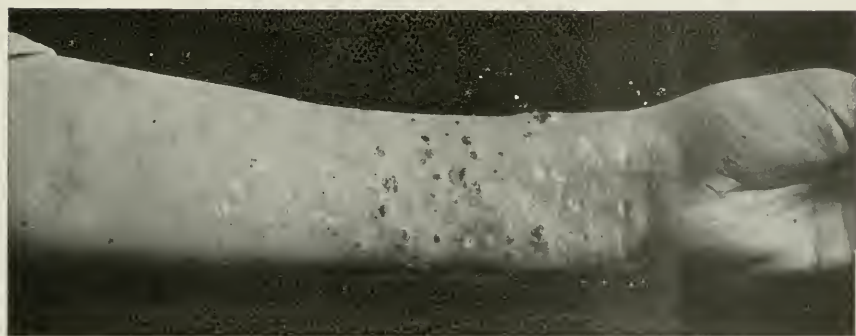


FIG. 2.

forearm. The disease commenced as a "pimple" on the wrist, then other discrete lesions appeared. The papules became pustular and varied in size 3 mm.-6 mm. One month after the onset the disease was at its worst, the pustules being very numerous, the whole hand and forearm being swollen and there was much inflammation round the pustules. Two weeks later the disease was almost well. Then in two or three days a relapse occurred.

When seen by the writer there were numerous discrete pin-head to pea-sized (3 mm.-6 mm.), pustules and scabs, mostly the latter, and under the scabs were superficial punched-out ulcers. All the pustules were follicular. Many superficial, variously-sized, punched-out atrophic scars, many of a bluish white tinge were also present (Fig. 2). The patient said that the arm felt "achy and heavy" as if another fresh outbreak was going to occur. The patient is well developed, but rather pale and flabby, bowels regular, feels strong, does not sleep well, but has much headache because of loss of sleep; menstruation is irregular. Hysterical symptoms are absent, but she has a morbid appetite. There was a tubercular history in the family, but no tubercular symptoms in the patient. There was an entire absence of any syphilitic history. Four days later a fresh outbreak occurred, numerous pustules had appeared about the hair follicles; pustules being about 1 mm.-2 mm. in diameter and were surrounded by an inflammatory areola. The primary lesions were nodular at first, fairly deep on palpation, discrete and rather painful, still the health was good. The epitrochlear and axillary glands were slightly enlarged. White precipitate ointment was ordered, which caused the eruption to almost disappear in a week; then the patient declared that the arm felt achy again as if a relapse was going to recur. Two relapses did occur later, but both were much less severe than the earlier ones. Some of the pustules were distinctly variola-like in appearance. A number of cultures and smears were taken, but only the staphylococcus aureus grew and diplococci were seen in the smears, no tubercle bacilli were found. A small primary papulo-pustule was excised and the sections showed, as one would expect, an acute inflammatory process round the hair follicle and sebaceous gland. The lesions were cured by local application of pure carbolic acid to each lesion. The case was a very interesting one, because of the severe folliculitis followed by the formation of punched-out ulcers, which were followed by characteristic atrophic scars. Another interesting feature was that the patient could tell by about two days beforehand by the achy and heavy

feeling of the forearm that a relapse was going to occur. I could not note the presence of any premonitory symptoms on the two occasions when the patient said another outbreak was going to follow. Now where does this case belong? I suppose it belongs to the group of *Acne varioliformis*, or *Acne rodens*, or *impetigo rodens* (Dev-ergie), which last title would really designate this particular case, but it is not an example of folliclis. This case was one of *Folliculitis staphylogenes* followed by the formation of punched-out ulcers and atrophic scarring. I have seen a number of cases of *acne necrotica frontalis*, some very typical ones, but they were all chronic cases and one of them was associated with syphilis, and disappeared under syphilitic treatment.

DISCUSSION.

Dr. JAY F. SCHAMBERG said there was one phase of this subject of tuberculosis of the skin which was of considerable importance; namely, the frequency or infrequency of systemic infection from localized tubercular infection of the skin. The speaker thought that the vast majority of localized tubercular skin lesions were due to direct external inoculation, and did not give rise to any systemic infection. Occasionally, however, systemic infection did occur.

In connection with this subject, Dr. Schamberg showed the photograph of a boy who injured the sole of his foot by stepping on a piece of glass. He subsequently developed a tuberculosis verrucosa cutis, and still later the femoral glands enlarged and suppurated, and in the fistulous discharge that resulted tubercule bacilli were found. While such instances were comparatively uncommon, they were occasionally observed, and the indications were that such skin lesions should be extirpated as promptly as possible.

Cases of localized tubercular infection upon the hands and elsewhere were numerous, and such lesions might remain innocuous for many years. The speaker recalled the case of a laryngologist who inoculated himself while treating several cases of tuberculous laryngitis. In that instance the diagnosis was confirmed by inoculations made into two guinea-pigs. The speaker said it had occurred to him on examining the microscopic sections in this case that the immunity from general infection in these cases might be largely due to the fact that the tubercles became circumscribed by fibrous tissue.

PIGMENTED SPOTS IN THE SACRAL REGION OF WHITE AND NEGRO INFANTS.

By CHARLES HERRMAN, M. D., New York.

Attending Pediatrician, Lebanon Hospital; Assistant, Department of Pediatrics, Vanderbilt Clinic.

Read before the Section on Pediatrics of the New York Academy of Medicine, February 14, 1907.

THE pigmented spots in the sacral region as they occur in the infants of dark-skinned races have attracted the attention of anthropologists for a great many years. In Japan, where ninety per cent. of the infants show these spots, their macroscopical appearance was described by Japanese writers over one hundred years ago. In 1885, Baelz,¹ a German pathologist resident in Japan, described for the first time the microscopical appearance of sections of the skin taken from the parts affected, and found characteristic large pigment cells in the deeper layers of the corium. In 1895, Grimm,² in a paper on pigmentation in general, described in detail the histological findings in skin sections and differentiated two varieties of pigment cells, of which only the large, well defined cells in the deeper layers of the corium were characteristic. In 1903, Adachi,³ a Japanese pathologist, published a very elaborate paper on pigmentation in man and apes. After corroborating the findings of Baelz and Grimm, he was led to the belief that similar pigment cells would probably be found in white infants. He therefore examined a series of skin sections from the sacral region of twenty-four white infants and in ten of these he found the same characteristic pigment cells which were found so frequently in Japanese infants, though they presented no visible spots on the surface of the skin. On the basis of these findings he concluded that the spots were not characteristic of the Mongolian race and suggested that if a large series of white infants were examined the visible spot in the sacral region would probably be found. Acting on this suggestion a Japanese friend, Fujisawa,⁴ who was at the time attached to the

¹ Baelz. *Mitt. d. Deutschen Ges für Natur. u. Völkerkunde Ostasiens*. Bd. iv. 1885.

² Grimm. *Dermat. Zeitschr.* Bd. ii. 1895.

³ Adachi. *Zeitschr. f. Morphol u. Anthropol.* Bd. vi. 1903.

⁴ Adachi and Fujisawa, *idem*.

clinic for diseases of children in Munich, found the characteristic spots on the fiftieth infant examined. In this he was unusually fortunate, for the spots occur only in about one in four hundred.

In this country the only paper on the subject was published by Ashmead⁵ in 1905. He describes the spots as they occur in dark-skinned races, but makes no mention of their presence in white infants. In 1906, Ebstein⁶ published a paper on the subject in which he states that he had observed the spots for many years in white infants, but never having seen similar ones on Japanese infants he could not say positively that they were identical. It is unfortunate that he has given to his paper the title "The Blue Spot in the Sacral Region and other Mongolian Peculiarities in European Infants." The other peculiarities described are those of the so-called "Mongolian Imbecile." The reader naturally receives the impression that these are in the same sense Mongolian, and that the Mongolian Imbeciles would be more likely to present the characteristic blue spots. The blue spots in the sacral region are to a *certain extent* characteristic of the Mongolian race in so far as they occur in a very large per cent. of their infants. The peculiarities of the Mongolian Imbecile on the other hand are not in the true sense "Mongolian" at all. The term Mongolian or Kalmuc, was used by Langdon-Down and other English authors who first described this form of imbecility simply as a convenient expression of comparison from a superficial resemblance of features.

These spots occur not only in the Mongolian race but in the infants of Java, the Malay peninsula, Hawaii, Greenland, the North American Indian, etc.; in other words probably in all the darker skinned races. They are also common in apes, on whom the spots are much larger and in greater number. In white infants the spots are comparatively rare. During the last eighteen months the writer has examined about two thousand infants, and has found the spot present in six; that is in about one in four hundred. All of these infants had dark hair and iris, in three the skin also was of a light brown tint. These cases include only those in which the spots were very distinct, in several other cases they were faint and would very likely have been overlooked if not sought for. They are not confined to one nationality. Of the six cases above mentioned five were of Russian parentage, one Italian. The larger number of the former is due, however, to the fact that the majority of the patients examined were of Russian parentage. The percentage of infants presenting

⁵ Ashmead. *Journal of Cutan. diseases*. Vol. xxiii. 1905.

⁶ Ebstein. *Jahrb. für Kinderheilk.* Bd. 63, 1906.

these spots will probably vary according to the nationality of these examined. In the darker skinned with a prevalence of the brunette type, viz: the Spanish, Italian, etc., the percentage will be greater.

In negro infants the spots are much more common. In a series examined in Dr. La Fétra's service at the Vanderbilt Clinic, the spots were distinct on twenty-five per cent. They were more easily seen in those whose parents were not extremely dark skinned, and as the infant grew older more pigment being deposited in the superficial layers of the skin, the pigmented spots beneath were to a certain extent concealed and became less distinct.

The spots are more frequently seen in the sacral, lumbar, and gluteal region, occasionally on the upper part of the back, shoulders and extensor surfaces of the extremities, rarely on the face. In one of the writer's cases there was an irregular patch about the size of the palm of the hand on the inner side of the thigh.

According to Grimm, the spots appear as early as the fourth month of intra-uterine life. They are usually seen at birth, but may sometimes become more distinct during the first few weeks. Afterward they gradually grow fainter and disappear at the end of the second year. In rare instances, especially when situated in an unusual location, they persist for a much longer time.

In white infants there is more commonly one spot, in negro infants several. They vary in size from a dime to the palm of the hand; they are circular, elliptical or irregular in outline, often two large spots are joined together by a narrower portion. They are not raised above the surface of the skin, are not covered by a growth of hair, and do not show any indication of blood vessel formation. By putting the skin on the stretch, the part is blanched and the outline of the spots become more distinct, though their color does not change. In white infants the color is a grayish blue to slate, the color varying in depth according to the number of pigment cells, and the closeness with which they are grouped. They look not unlike tattoo marks and are really produced in a somewhat similar way. In negro infants the spots usually present a more greenish tint.

The microscopical examination of skin sections (Fig. 2) show the characteristic large pigment cells in the deeper layers of the corium. The cells are spindle-shaped, a few star-shaped, and are filled with dark brown pigment granules. It is important to remember that in forty per cent. of white infants, these cells are present on microscopical examination, although they show no spots on the surface of the skin.

Aside from their anthropological interest, these spots may oc-

casionally have a medico-legal importance, in cases in which there is a suspicion of violence at birth. They are also to be differentiated from hæmorrhages due to other causes (resuscitation of an asphyxiated infant; purpura, due to infection or other causes). They differ in their uniform color and in the fact that their appearance does not change. From the nævi, vascular and pigmented, they are easily differentiated by their color and tendency to disappear; by the fact that they are not raised above the surface of the skin; that they do not change on pressure and show no growth of hair or indication of blood-vessel formation. In one of the writer's cases the patient presented three typical vascular nævi in other parts of the body in addition to the pigmented spot in the sacral region.

There is a form of vascular nævus which the writer has seen not infrequently in infants, which differs from the ordinary form in not being raised above the surface of the skin. It sometimes persists into adult life. This spot is situated above the root of the nose and on the lower part of the forehead. It differs from the blue spots described in the fact that it is not uniform in color but shows streaks, or patches of color, and changes on pressure. It is important to remember that the blue spots do in rare instances occur on the face, that they tend to disappear spontaneously and that, therefore, operative removal is unnecessary.

Why do the blue spots occur with so much greater frequency in the sacral region? The older writers, who knew nothing of their histology, gave all kinds of fanciful explanations, the most commonly accepted being that they were due to coitus during pregnancy. Some of the later writers had a more plausible theory, namely, that they were caused by pressure on the parts in uterus, this by impeding the circulation, favored the deposition of pigment, which was in excess in the circulating blood. This theory, however, has proved untenable. Adachi, who has probably studied the subject more carefully than any other writer, frankly admits that he can give no satisfactory explanation. It is worth noting that the lumbo-sacral region is developmentally a point of least resistance, as shown by the presence of spina bifida, dermoid cysts, and other tumors of congenital origin.

Are these spots characteristic of any particular race? Do their presence indicate with certainty a definite ancestry? Ashmead is inclined to believe that they always indicate negroid origin. Ebstein claims that the European infants who present these spots are of Mongolian descent, or that there is some Mongolian ancestry. Just as the curly, kinky hair is characteristic of the negro, though it may



FIG. 1.



FIG. 2.

occasionally be seen in the European, so the blue spot he claims is characteristic of the Mongolian, although it may sometimes be found in an European infant. True, but just as we should not be justified in stating that a European with curly, kinky hair was of negro ancestry, so we are also not justified in saying that an European infant with the blue spot is of Mongolian ancestry. The fact that the spots are present in the infants of widely separated countries, who have little in common except an increased amount of pigment in the skin, hair and iris; that in European infants they are found in those of the brunette type; and the fact that forty per cent. of white infants show the characteristic pigment cells microscopically, though in only one-fourth of one per cent. are these cells in large enough numbers and sufficiently closely grouped to present a spot on the surface of the skin; these facts point strongly to the conclusion that *they are not a racial characteristic*.

The intermarriage of Japanese (or any other dark-skinned race) and Europeans would naturally favor the appearance of the spots in the offspring. In this connection the accompanying illustration is interesting (Fig. 1). The case was seen in the service of Dr. Henry Heiman. The parents were Russian. Though a careful inquiry did not elicit any possible Mongolian ancestry, the mother's features are not unlike the Japanese.

Are the spots in any sense stigmata of degeneration? The evidence in favor of such a view is insufficient. The cases seen by the writer showed no other anomalies (except in one case, vascular nævi), and were as intelligent as the average infant of the same age. Congenital anomalies or peculiarities are not always associated with degeneracy, at least as far as our examination can detect it. Telford Smith and others at first believed that the short curved little finger was characteristic of the Mongolian Imbecile. Later, West showed that it was found in a large percentage of normal persons. Recently the writer has examined a large series of school children and found this anomaly present to a marked degree in ten per cent. These children were in no other respect abnormal.

DESCRIPTION OF PLATES.

FIG. 1.—Pigmented spot in the lower lumbar region in an infant. Features of mother (Russian) not unlike Japanese (black hair and dark brown iris).
FIG. 2.—(After Adachi.) Pigment cells in deep layers of the corium.

THE INTRAMUSCULAR INJECTIONS OF MERCURY IN THE TREATMENT OF SYPHILIS.

By EDWIN H. SHIELDS,

Professor of Skin Diseases, Miami Medical College, Cincinnati, O. Dermatologist
Jewish Hospital.

Read before the Butler Co. Med. Society.

THE method by which the greatest quantity of mercury can be introduced into the system in the shortest space of time without producing any ill or depressing effects is the method *par excellence* for the treatment of syphilis.

In the treatment of syphilis we all strive to reach the same goal, using the same vehicle but by different methods, the only point on which we all agree is that we must rely on mercury.

For many years the inunction, gastric and fumigation methods were the only treatment of syphilis, and it was not until 1864 that the hypodermatic use of mercury was given to the medical profession by an Italian named Scarenzio. At the time this method was advocated it was supposed that its use would revolutionize the treatment of syphilis. The medical profession was slow in accepting this treatment and before long it was forgotten. Levin took up the treatment and gave it a new impetus and it is gaining ground every year, not alone in Europe, but also in America. Ten years ago the intramuscular injections were severely criticised, yes condemned, but time changes all things, even the views of the medical men; it is only necessary to refer to the good works of Taylor and Morrow published a few years ago to learn of the adverse criticism. To-day we have many ardent advocates of this method. Even in this academy we have a new disciple, it was only seven years ago when he was on the other side. Those who are not firm advocates of this method recommend that the injection treatment should be used in especially severe cases or in those who do not respond to other treatments or when the stomach ceases to tolerate mercury. Thus you see that even the skeptics know a good thing once in a while.

As before stated we have different methods by which we can reach the desired goal and every practitioner claims that by his

method of inunction or the internal administration of mercury he is able to affect a *good* result.

Once in a while you will find a general practitioner who now and then uses the intramuscular injections, but in combination with the other methods, why he mixes I do not know. I think that I understand why many practitioners, after having used a method for many years, and having obtained that which, in their judgment, seemed to be success do not care to try a new one; it is because they have fallen into an old rut from which it is impossible to remove them. I can also understand why the objections raised against the hypodermatic injections existed during the first few years of its use, it was owing to lack of asepsis and suitable preparations of mercury. Why does this crusade exist to-day? They have condemned a good method when in reality the condemnation should fall upon the careless physician and the preparation of mercury because to-day we recognize asepsis, and have suitable preparations for hypodermatic use. In the internal treatment of syphilis it is recommended that we begin with small doses of mercury and gradually increase the quantity until the so-called tolerant dose is established; this tolerant dose is so changeable, not alone with the preparation used, but with the age, and sex of the patient, that I look upon the tolerant dose with suspicion. A tolerant dose depends upon many conditions and combination of conditions, such as:

1. Children can take more mercury in proportion to weight, than adults, with much less disturbance of their digestive tract.
2. Females do not tolerate mercury as well as males.
3. Idiosyncrasy and the general physical build of the patient must be considered.
4. The preparation of mercury.
5. The time at which the drug is administered.
6. The length of time for which the drug is used.
7. The irritation resulting from the ingestion of mercury.
8. The quantity of food in the stomach and intestines at the time of administration.
9. The quality of food ingested.
10. The quantity of mercury.
11. The honesty of the chemist.

From the foregoing conditions you can readily see what we have to contend with in establishing tolerance, furthermore, you see the many conditions that have a tendency to regulate the amount of mercury absorbed. From the above facts you see that when mercury is administered internally we are dealing with an unknown

quantity. The physician makes a great mistake if he thinks that all that is required of him during the treatment of syphilis is simply to fill the patient's stomach with mercurial pills. Gentlemen, this drug should be handled with care; the injudicious use of mercury will work a great detriment toward your patient. I believe that the time is not far off when we shall be more considerate of our dosage. As to the use of inunctions although we know the exact amounts placed upon the outside of the body we do not know just how much is taken in and therefore we are dealing with another unknown quantity. The efficacy of inunctions is due, not so much to the amount of mercury absorbed by the skin, but to the mercurial vapor inhaled by the lungs. Welander has proved this beyond a doubt. Acting upon this theory I placed patients in cabinets and allowed them to inhale mercury vapor from a bottle, and in both instances I got results, but the treatment takes up too much time and necessitates daily visits and the results are too slow.

Aside from the fact that the inunctions are greasy and filthy, and cannot be used on all classes of patients, owing to certain existing relations, I find that it is almost impossible to secure a preparation of Ung. Hydrarg. that is not rancid and therefore its use is very prone to cause an eczema and folliculitis. Some practitioners prefer a rancid ointment and claim that the fatty acids formed convert the mercury into an oleate of mercury. Another great objection to inunction is that they have a marked tendency to cause a swelling of the mucous membrane lining the buccal cavity and that it causes a very fetid breath even though a small quantity of mercury be used.

For the hypodermatic use of mercury I can say that none of the objectionable features existing in the other named methods are found; furthermore, every advantage of the other methods of administration can be claimed for the intramuscular injection. I claim the following advantages for the hypodermatic use of mercury:

1. That we deal with a definite quantity of mercury.
2. That the dose is easily regulated.
3. That we produce a more rapid mercurialization of our patient.
4. That it is suitable for both sexes.
5. That smaller quantities of Hg. are required to produce the same results as larger quantities administered by other methods.
6. That it is not necessary for the patient to take Hg. for so long a period as when given by other methods.

7. That ptyalism occurs less frequently, in fact, is exceedingly rare.

8. That you prevent gastro-intestinal disturbances.

9. That instead of patients losing they gain in weight.

10. That the anæmia which accompanies syphilis, disappears in a much shorter period of time than when Hg. is administered by the mouth or by inunctions.

11. That owing to the limited time of its administration you do not cause anæmia which so often results from the prolonged and continued use of Hg.

12. That the symptoms yield more rapidly.

13. That it is cleanly and can be used in all classes of patients.

14. That it is suitable for mild as well as for severe cases.

15. That we have better control of our cases.

16. That, as a rule, when other methods fail, this one gives results.

As stated in the beginning of this paper the general use of the hypodermatic injection has not met with the approval of most practitioners; its use is still restricted to special and severe cases, they take the following stand:

1. They are able to accomplish everything by the internal and inunction methods.

2. That the use of injections should be limited to special or severe cases.

3. That when the stomach and skin will not tolerate Hg., injections may be used.

4. That for the busy practitioner the injection method consumes too much of his time.

5. That in order to give injections one must have his needle syringe, and solution of Hg. sterile, and that the average physician is likely to neglect this care.

6. That injections are very painful.

7. That it consumes too much time to give injections every day.

8. That abscesses are prone to occur.

9. That they cause emboli.

10. That injections produce large nodules.

11. That there is danger of injecting into a vein.

12. That atrophy of the gluteal muscles sometimes follows the use of injections.

13. That the needle may injure the periosteum and bone, and cause a periostitis and a necrosis.

14. That ptyalism is frequently produced and then it is impossible to remove the supply of Hg.

15. That chronic mercurial poisoning often occurs.

16. That it requires the same length of time by any method of treatment to affect the clinical cure and that owing to the above objections, they prefer the internal or inunction methods, as a matter of convenience not alone to themselves, but also to the patient.

17. That relapses are more frequent.

18. That death sometimes follows the injection treatment.

Let us now investigate the objections, and see whether each and every objection can be sustained.

That all that is accomplished by the injection can be done by other methods. This I must deny, basing my opinion upon many cases treated in private practice, also many cases in my clinic at the Miami Medical, and my experience in the European hospitals. I have had cases under my care where the patients were taking large doses of mercury and the disease continued to make progress.

All cases treated by the injection method yielded quickly, in other words, I had the upper hand in the struggle in a very short time. If the injection treatment is good for severe cases why is it not good for the mild ones? As to the pain caused by injections I have only this to say, that the severity of the pain depends to a marked degree upon the needle, solution of mercury, the quantity of fluid injected, the aseptic precautions, and the depth of the injection. If the solution is simply deposited in the subcutaneous tissues you will cause more pain than when the solution is deposited in the muscle. Large quantities of injection fluid causes more pain than small quantities. The greater the quantity of Hg. in the salt used the greater the pain. Insoluble salts are more painful than the soluble ones. As to other objections all I can say is that if proper care, cleanliness and judgment be used there should be no disagreeable or dangerous results following the use of injections. That death has followed the use of injections I shall not deny, but in most instances large quantities of mercury salts containing a large mercurial radical or large doses of metallic mercury were used. A death is also reported from a small quantity of Hg. as 0.06 of calomel.

What can be said as to the relative value of the various methods? It is accepted by most syphilographers that the more energetic the treatment during the early secondary stage the better the results obtained, not alone for the present but for the future. Since we have a specific for this disease, the question resolves itself down to

one point, namely: How can we introduce into the system the largest quantity of mercury in the shortest space of time, without producing ill or depressing effects? As all remedies act more powerfully when given hypodermatically, why should mercury be an exception to the rule? It requires smaller doses and less time to produce the same results obtained by other methods, with larger doses and longer time, because our medicament is placed directly into the circulation and there is no waste. By being able to introduce into the circulation a remedy that has the power of acting upon the specific virus, we are able to prevent many of the destructive changes which accompany the disease. Winternitz has published a very interesting article in the *Archiv für Dermatologie u. Syphilis*, "On the Elimination of Quicksilver from the Body." He demonstrates that there is more mercury eliminated after the use of the intramuscular injection than by other methods. Next in order of elimination is the inunction method, and that by the internal administration only very small quantities of mercury are eliminated. From his statement I have made this deduction: That in order for large quantities of mercury to be eliminated it is absolutely essential for the Hg. to be absorbed.

As to the time required to affect a "clinical cure" I can say that all methods require about the same time, namely, two to five years, according to the views of different clinicians. Then if such be the case what do we gain—a great deal. First, the disappearance of all symptoms in a short space of time, relieving the patient's great anxiety, this I consider of great importance. Second, the infectious period is shortened, and this is of still greater importance, especially in married men, and men of family. Third, I mentioned in the beginning of this paper the effect of mercury on the stomach, intestines and the general condition of the patient. The following statistics given by Neisser appeared in the *Klinische Jahrbuch* I, 1899:

One hundred and twenty-four men treated by inunctions remained in the hospital 4174 days or an average of 33.6 days. Three hundred and thirty-nine women treated by inunctions remained in the hospital 12,363 days, or an average of 36.5 days.

Thirty-one men treated by the injection method with soluble salts of mercury remained in the hospital 822 days, an average of 26.5 days.

Eighty-eight men upon whom the insoluble salts were used remained in the hospital 1852 days, an average of 22.1 days. Two hundred and fifty-six women thus treated remained in the hospital 6115 days, or an average of 23.8 days.

To recapitulate, we have 463 men and women treated by the inunction method remaining in the hospital 16,539 days, or an average duration 35.1 days per person.

One hundred and three men and women treated by the injection method using the insoluble salts of mercury remaining in the hospital 2,934 days, or an average of 28.48 days per person.

Three hundred and forty-four men and women treated by injections but using the insoluble salts remained in the hospital 7967 days, or an average of 22.9 days per person. From the statistics you can see that my claim is borne out by others. Unfortunately I could find no statistics of the internal administration of mercury, but I am satisfied that there would be a wide margin between it and the other methods. As to recurrences being more common after the intramuscular injections than is seen after the use of other methods; this is a problem too difficult for me to solve because we know that if a patient takes treatment for a week or a month or treble the time, we can always expect a recurrence of some symptoms during the first few months or even during the first year, and that statistics are not reliable because we do not know how thorough the treatment has been.

Of the various preparations of mercury for the hypodermatic use I prefer sublimate, then the sozoiodolate of mercury, cyanide of mercury, the salicylate of mercury. I have used gray oil, and calomel, but have not found them to possess advantages not to be found in the other preparations.

A NEW COMEDO EXTRACTOR.

By JAY FRANK SCHAMBERG, M. D., Phila.

The removal of the inspissated sebaceous plugs that obstruct the glandular ducts and the evacuation of the softer sebum beneath is an important part of the treatment of acne. The expression of blackheads in some people is attended with much difficulty. I have



heretofore used the Unna comedo extractor; in making considerable pressure with this instrument the border of the ring has frequently cut into the skin. The use of the small aperture end makes close scrutiny necessary to be sure that the pressure is made just where it is desired.

The extractor portrayed above appears to have several advantages over Unna's instrument:

(1) It is much more readily kept clean as no seborrhoic cocoon can block the aperture.

(2) Pressure can be made with nicety exactly upon the border of the follicular outlet, as the instrument does not obstruct one's view.

(3) For this reason patients can manipulate the instrument themselves to better advantage.

(4) Blackheads can, it appears to me, be more quickly and more readily removed with this instrument.

The extractor is made of tempered steel with the apertures filed out; the ends are slightly curved.

CORRESPONDENCE.

A REMARKABLE PHOTO-PHYSICAL DISCOVERY.

To the Editor of the Journal of Cutaneous Diseases:

The past ten years have witnessed a remarkable development in the domain of physical therapeutics, in contrast with those of a pharmacal character. Aside from the use of electricity, which dates back as a therapeutic agent to the days of Benjamin Franklin, the more recent achievements have been in connection with certain radiations, notably, the X-Rays, radium radiations, light rays and the invisible radiations that accompany them. That the use of these agencies should be taken up by many men who are utterly ignorant of the scientific principles that underlie their proper employment is a matter of common knowledge, but the limit has been reached, we think, in an article that appeared in a recent number of a western journal.

The article as a whole is of the not infrequent "pot-boiler" type, and gives us to understand that, in the author's belief, "We have in the Finsen light as near a specific for this localized (cervical) cancer as is known." He further informs us that he had to go to Copenhagen to have his tubes constructed under Dr. Finsen's supervision. It is well known that the lenses in the Finsen apparatus are of quartz to permit the passage of the ultra-violet rays that would be obstructed by ordinary glass. Concerning them the author of the article says: "The marvelous quality of quartz crystal in cutting out all but the blue, the violet and the ultra-violet rays of the spectrum, was the great discovery of Prof. Finsen."

Alas! poor Finsen is no more, and cannot therefore repudiate the "great discovery" that is here attributed to him. The statement we have quoted is certainly new to science, and we fear that the honor must rest alone with the learned (?) author of the article on which we have commented. But what shall we say of the editor that permits such a glaringly ridiculous statement to appear in his columns?

X. Y. Z.

March 20, 1907.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

348th Regular Meeting, February 26, 1907.

Dr. A. D. MEWBORN, President.

A Case for Diagnosis Shown by Dr. Fordyce through the courtesy of Dr. E. P. McGavock.

The case was presented before the Society about four years previously with the diagnosis of blastomycosis. Since that time several attempts were made by histological and cultural methods to confirm this diagnosis, but unsuccessfully. The history given by the patient was as follows:

In 1898 a swelling appeared back of the left ear, which was painful and slowly increased during the succeeding three or four months, when it was incised and gave exit to a small quantity of pus. From that time a slowly spreading ulceration extended over the side of the scalp, neck and underneath the jaw, which healed with a smooth, shining, superficial scar, destroying the hair follicles. In 1902 the diagnosis of blastomycosis was suggested and the patient was treated with a 50 per cent solution of resorcin locally and iodoform internally, two to three grains morning and night. Following this treatment the affected surface healed excepting a patch the size of a dime involving the skin over the larynx. After some months it slowly spread to the right side of the neck underneath and back of the right ear and down to the sternal notch. He was at present being treated by Roentgen rays, which had been followed by healing of a considerable part of the involved area.

The numerous cultures revealed only the presence of staphylococci and streptococci. The histological findings were briefly as follows: An enormous epidermic hyperplasia with miliary abscesses and a chronic inflammation of the derma. The cellular elements in the abscesses and corium were largely round cells and polynuclear leucocytes; some plasma cells were present, but no giant cells.

Dr. Fordyce said that he had nothing to add to what he had already said, except that it was an unusual condition. Search had been made for blastomycetes, but only pus organisms had been found. The man lived in a very healthy locality, 2300 feet above sea level. Several years ago he had seen a somewhat similar case in a girl who lost all her hair and had a scar much like this. No histological examination was made of the latter patient.

A Case of Syphilis. Presented by Dr. WHITEHOUSE.

Dr. Whitehouse said that he had presented this case last month for diagnosis. The gentlemen who were present at that meeting will remember that the condition on the back of the hand resembled a scrofuloderma in some respects, but nearly all agreed that it was a case of tubercular syphilide. As the gentlemen would remember, the history dated back ten years, without healing, and there was no pain and no tenderness. Since then the man has been on mixed treatment with increasing doses of bichloride and has been taking it steadily with marked improvement. He is now taking one-twelfth grain of bichloride three times a day with 10 grains of iodide of potash.

A report from the pathologist has been received which seems difficult to reconcile with the present condition of the case. Those who saw the case last month will all agree that there has been a marked change for the better; in fact, it is nearly well. "Microscopical examinations show an epithelioma extending deeply into the subcutaneous tissue, and showing a very marked inflammatory infiltration in the corium and subcutaneous tissue. Cell nests or 'pearls' are very numerous. Smears from the largest round spot and from the thin purulent fluid discharged from a smaller nodule are negative for tubercle bacilli, actinomyces, and spirochæta pallida. Cultures gave a pure growth of streptococcus."

Dr. FORDYCE thought that the underlying condition was a tubercular syphilide, but there was now a circumscribed warty place on the lesion which suggested epithelioma, probably one developing on a syphilitic base.

Dr. ROBINSON said that he had seen sections of this case three weeks ago, and was not convinced that they showed epitheliomatous structure.

Dr. WHITEHOUSE said he had nothing further to add, that the only way he could reconcile the pathological report with the clinical condition and therapeutic results was to infer that there was an epithelioma on top of the old syphilitic process. His own opinion was, however, that the disease would clear up entirely under the mixed treatment, in which case it would be only reasonable to believe that the epithelial changes which are liable to occur in chronic syphilitic processes were misinterpreted as an epithelioma.

Dr. ELLIOT suggested the continuation of the mixed treatment for another month, and then, if any of the condition remained, to have another examination made for epithelioma.

REPORTS OF CASES.

Lichen Planus of Palms.

Dr. JACKSON reported the case of a man, whom he had recently in his office, with well-marked lichen planus with buccal lesions, and lesions on the palm of his hand. The latter were in the form of raised scaling papules. The palms, he said, are very rarely involved in this disease.

Dermatitis Vegetans in a Mulatto.

Dr. WINFIELD reported a case of dermatitis vegetans in a six-months-old mulatto girl who had just recovered from a pneumonia.

During her convalescence several papules developed upon her head, forehead, cheek and left leg; these papules rapidly changed into vegetating tumors; they slowly increased in size until the whole top of the head was covered and one or two of the isolated lesions grew to the size of a twenty-five cent piece.

At first the eruption was thought to be a fungating bromide dermatitis, but from the subsequent course of the disease, as neither the bromide or iodide salt had been given, the diagnosis of dermatitis vegetans was made. The case in many respects resembled those reported by Wende, Fordyce and Pusey.

Oedema Following Ptomaine Poisoning: Two Cases.

Dr. JOHNSTON said that he had under observation a couple of cases on which he would like a little light, one of the patients a man and the other a woman, suffering with identical conditions. Eight months ago both were attacked with ptomaine poisoning, the man having eaten bad chicken and the woman fish. Since that time both had been suffering from what might be called angioneurotic oedema. There was swelling and erythema at times; at others merely itching in spots the size of the hand on the abdomen, on the back and neck, a little on the face and sometimes on the hands. The trouble starts with both at about 4:30 in the afternoon before the heavy meal. The man's urine had been examined and revealed nothing of importance. There was no indican; and there was no blood change. Both were extremely light eaters, and do not eat much meat. They are eating still less now under instructions. Dr. Johnston said that he had tried to discover some sort of etiology, but could find nothing. He had treated them with free catharsis, diuretics, and hot air baths and pilocarpin. The man had received at first one-sixtieth gr. t. i. d., running up to one-thirtieth q. i. d. He got all the toxic effects, but the outbreaks went on and have not been influenced noticeably by the treatment at any time. The man has recently had an attack of angioneurotic oedema of the oesophagus.

(NOTE.—The patients have improved recently under intestinal astringents and a massive dose of calcium lactate (gr. 40) once a day. The man is practically well. He was under treatment for two weeks with daily injections of 1-2 c. c. of a thyroid extract, which held the eruption in check but did nothing more. At the end, it also caused symptoms of poisoning.)

Urticaria and Toxaemic Conditions.

Dr. LUSTGARTEN said that all had seen cases of chronic urticaria extending over years which resisted treatment of every kind. He recalled two very striking cases. One, a merchant, had had urticaria for several years, and none of the treatment practiced, including large doses of pilocarpine, gave any relief. There were no symptoms all this time of cholelithiasis, but after two years he developed this condition with fever, and was operated upon, and since that time has had no more

urticaria. The second case was a young girl with a very violent urticaria extending over a long period of time. Finally it was discovered that she was suffering from lactic acid fermentation, and it only disappeared, after the failure of many other attempts, by local treatment and stomach washing. These cases are all toxæmic, and it is sometimes difficult, if not impossible, to lay our hands on the cause.

DR. WINFIELD inquired if urinary examinations revealed nothing, and DR. JOHNSON suggested that cholelithiasis ought to show some evidence of bile; but DR. LUSTGARTEN said nothing of the kind was evident.

Angioneurotic Oedema.

DR. WINFIELD reported a case of a woman who had several attacks of pain and gastric distress, resembling in some respects ptomaine poisoning. The attacks came on at intervals with increasing severity, until three months from their first onset she had a very severe seizure; the attending physician diagnosed cholelithiasis.

Each attack had been followed by angioneurotic œdema on various parts of the body, face, hands, lips, even at one time the tongue and glottis.

Successful treatment for gall stones has prevented a recurrence of the œdema.

Anaemia Favoring Susceptibility to Toxic Substances.

DR. LUSTGARTEN told of two instances where he had observed a rapid accumulation of toxic substances in highly anæmic subjects. This question is at times lost sight of and may at times lead to peculiar consequences. The first case he saw many years ago with Dr. Draper. The patient was a young highly anæmic girl, showing all the evidences of very severe and profound anæmia and amyloid degeneration. Several weeks ago she developed a grouped iododerma tuberosum-like eruption, chiefly over the hands and face. The case became much worse under specific treatment, and when I saw her I expressed my suspicion that it was a case of iodic eruption. Dr. Draper said that this would hardly explain the origin of the trouble before specific treatment had been given. So we went carefully over the chart and finally found that several weeks before she had been started on some mixed compound cathartic which I did not know and which as we found out contained a small quantity of iodides. The test was made and in a very short time the eruption entirely disappeared, although it had existed for months. It was more or less of an accident that an iodide should be in a formula of a compound cathartic, where one would not think of looking for it, but surely the amount was very small; and it is most likely that the profound anæmia and the other disturbances which interfere with the metabolism of elimination, etc., would account for the production of the iododerma tuberosum.

The other case was a woman whose case had been diagnosed as morpha. She was a very highly anæmic, chlorotic individual of twenty-five, who had come to one of our colleagues for a case of typical seborrhoic eczema of the scalp, which had extended to the face. Besides local treatment, the doctor had given her arsenic in not very large doses. She soon developed large itching plaques on the body, keratosis on the palms, and a burning dermatitis of the face. The arsenic was stopped and in a week or ten days the second eruption disappeared, and the old condition was present again. In this case there was a comparatively small dose of arsenic. I suspect that the very deep anæmia of the woman accounted for the accumulation of the arsenic in the system and the rapid production of toxic symptoms.

DR. FORDYCE said, in connection with the question of eruptions from small doses of drugs in anæmic individuals, that he had seen recently an anæmic pregnant woman in whom a few doses of bromide of potash developed a great number of fungating tumors. In those cases it does not seem to be so much the dose as the idiosyncrasy of the individual which determines the character and extent of the eruption.

Keratosis Due to Arsenic.

DR. ROBINSON said that a month ago he had a case of keratosis of the palms and soles from arsenic, which had existed for five years. There were about thirty on each hand and probably one hundred on the soles of the feet—all isolated and warty. The patient said the same ones had been there for five years and that she takes a pair of scissors and cuts the ends off, to keep them from growing too long. Sections showed that the lesions were not psoriatic in structure although the patient has a marked general psoriasis.

DR. FORDYCE inquired if DR. ROBINSON had ever seen the combination of rodent ulcer and epithelioma, as he, DR. FORDYCE, had recently had such a case under care. A gentleman came to him with a lesion on the temple and one on the end of the nose, and another one under the eye. Pieces were taken from each for examination, and the lesion under the eye was found to be rodent ulcer, and the others were epithelioma.

DR. ROBINSON replied that he had seen such cases.

DR. LUSTGARTEN said that the general experience about the permanence of these warty conditions is that they undergo involution after stopping the drug. This woman had not taken arsenic for some time but had for two months taken about 60 drops of Fowler's solution, and got a general erythematous condition of the palms and soles, and then these warts. He said that he had been consulted by a colleague with this condition, who had not taken arsenic for years, though many years ago he took it in large doses for some nervous condition. As a rule, they disappear very promptly.

H. H. WHITEHOUSE, M. D., Secretary.

BOSTON DERMATOLOGICAL SOCIETY.

November Meeting.

DR. POST in the chair.

A Case of Psoriasis. Presented by Dr. H. P. TOWLE.

Margaret C., seven years of age, has had a generalized skin eruption for about two years. The outbreak occurred rather suddenly, rapidly extended to all parts of the cutaneous surface and has persisted since, from time to time improving, but always to be followed by a relapse. Since its inception the skin has not at any time been free from the disease. The scalp is almost completely covered with whitish scales which adhere to a reddened smooth skin beneath. The face is unaffected except about the nose and mouth. The body is thickly covered with pea-sized scaling papules, many discrete, others coalescing to form round, slightly infiltrated rings of varying dimensions.

Opinion concurred with the diagnosis of psoriasis in this case.

A Case of Syphilis. Presented by Dr. C. M. SMITH.

Mrs. C., widow, aet. twenty-nine years. The patient does not recall any affection of her skin or mucous membranes until the present disease began six to eight months ago as a "few small spots on the lips." These have persisted and have been augmented by others similar in size and appearance. She now presents about the mouth small, dull red papules, rather superficial and arranged in circles and segments of circles.

The duration and configuration of the lesions in this case left little doubt as to the presence of syphilis. There had been observed by one member a case of lupus vulgaris closely simulating the dermatosis presented which had run a chronic course characteristic of that disease.

A Case of Chronic Urticaria with Lichenification? Presented by Dr. C. J. WHITE.

The patient presenting this unusual condition is a lady born in Nova Scotia and sixty years of age. Although highly nervous she is very intelligent and seems positive that the original lesions which developed eight years ago are still present. The first appearance of the nodules suggested mosquito bites and consecutive to incessant scratching they gradually assumed their present appearance.

When first seen there appeared on the arms and legs, principally on the extensor surfaces and also more marked on the forearms and legs than on the upper arms and thighs, numerous small-sized nodules in the shape of truncated cones. Each lesion was round at the base without any marked surrounding inflammation, and on top assumed the color and the

multiple-celled appearance of lichen planus hypertrophicus. There was no tendency whatever toward coalescence and the lesions were distinctly firm to the touch.

Since first seen, two weeks ago, new lesions, rather wheal-like in character, have appeared along the rami of the inferior maxilla and at the lower portion of the neck. Otherwise there are no lesions on the trunk. Enlarged glands are likewise absent.

Itching is the great and prominent feature of the case. In her paroxysms of pruritus the patient's desire to scratch is almost uncontrollable.

There was a general hesitation to advance a positive opinion as to the nature of this unusual eruption. The possibility of several neoplasms, malignant and benign, as sarcoma, tubercular leprosy, and fibroma were suggested, only tentatively however. Dr. White's diagnosis of chronic urticaria and lichenification was supported by one member.

Primary Lesion of the Finger. Presented by Dr. C. J. WHITE.

Two weeks ago the present lesion developed from a hangnail of the left hand. To-day the radial half of the tissue about the nail is greatly hypertrophied, red, raw and somewhat moist. The epitrochlear glands on each side are enlarged but, apart from these, other manifestations of syphilis are absent.

The lesion in question was conceded to be a chancre of the finger. Although no secondary symptoms had yet appeared it was thought proper to begin anti-syphilitic treatment as the probability of the diagnosis seemed so great.

A Case of Erythromelalgia. Presented by Dr. J. T. BOWEN.

Albert F., aet. twenty-eight. Previous history irrelevant. Three years ago the right foot became painful over the ball behind the middle toe. At about this time there occurred sudden attacks of painful swelling about the ankle, sometimes lasting twenty-four hours and usually subsiding quickly. Last February the toes of the right foot became numb, turned white and burned intensely. Since that time more or less pain and pruritus have been present in the toes; they are sensitive to the touch and occasionally turn blue. Ten weeks ago a corn and nail were removed from the little toe of the right foot. The wound failed to heal and lancinating pains have been almost constantly present, causing considerable insomnia.

The toes of the right foot were generally reddened and somewhat swollen. An area involving a portion of the sole of the foot was cyanotic in hue and sensitive to pressure. The little toe was bluish and devoid of a nail. On the dorsal surface of the terminal phalanx several superficial ulcerations were present. Tenderness of the foot is marked when it hangs down, the toes becoming congested and of a cyanotic hue at the most dependent portions. Elevation of the foot relieves these symptoms.

The patient complains of constant pain and spends most of his time nursing his toes.

The distinction between erythromelalgia and Raynaud's disease is not always clear. Dr. Bowen's case of erythromelalgia presented at the March meeting (1906) of this Society was recalled, in which the left forearm and hand of a young woman were affected. The symptoms of fluctuating redness, oedema and pain are common to both diseases; either may involve the upper or lower extremities and may be unilateral or bilateral. Before the symptoms of gangrene and atrophy, which eventually occur in nearly all cases of Raynaud's disease, the clinical differentiation between these two affections is uncertain in the minds of many neurologists as well as dermatologists.

The ulcerations on the toe of the case in question were held to be the result of trauma to tissues of enfeebled vitality, rather than due to spontaneous necrosis.

A Case for Diagnosis. Presented by Dr. J. T. BOWEN.

John F., fifty-three years of age. Previous history excellent until four years ago when a sore appeared on the prepuce which lasted two or three weeks. Venereal history was especially denied. Several months later a papule appeared on the palmar side of the right wrist. Soon more lesions of similar appearance came out on the forearm and extended up to the elbow. A year later a corresponding outbreak occurred on the left wrist followed after an indefinite number of months by sores on the shin. The process has spread over the arms and fingers so that in the course of time the entire surface of the arms has been involved. The patient has been treated three years for syphilis. By his first wife four children died in the first week of life; a second wife miscarried two years ago.

Enlarged glands were palpable in the cervical, axillary and inguinal regions, but were largest in the groin where, on the left side, a tumor the size of a small egg could be felt.

The limbs were the chief seats of disease. On the back of the left hand there was an annular lesion half an inch in diameter, raised, of a light erythematous hue and in places excoriated and crusting. Another area similar in appearance but slightly larger was seen on the upper third of the forearm. Following the wrist and outer edges of the thumb an elevated and scaling line of infiltration could be traced to form a portion of a circle. Several scaling circular lesions were present on the palms. Both legs were the seats of indefinite redness and scaling. In all of the affected regions the skin was thickened and showed evidences of scarring and contraction. There was a mild eczematous condition of the scalp.

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Consensus of opinion favored the diagnosis of syphilis in this case. The patient's venereal history and the definite configuration of many of his lesions were the main diagnostic features of the case.

A Case of Syphilis. Presented by Dr. C. M. SMITH

Mrs. B., aet. twenty-three, married. Previous health good. One year ago the patient miscarried at four months.

The eruption, on account of which the patient is shown, began six to seven months ago as a small annular lesion on the left wrist which gradually enlarged. On the flexor surfaces of the left forearm and wrist were several erythematous and annular lesions; complete and incomplete rings which coalesced to form gyrate figures. On the right thigh there was a group of small, deep red papules two inches in diameter. No anti-syphilitic remedies have been taken by the patient.

The diagnosis of syphilis seemed so probable in this case that no discussion was elicited. The interlacing of the ringed lesions was thought noteworthy and a characteristic significant of syphilis.

A Case of Papular Syphilide. Presented by Dr. ABNER POST.

The subject of this case was a negress. She was generally covered with a small, firm, fine papular eruption which showed everywhere a disposition toward aggregation of the lesions.

This was another case of papular syphilide occurring in the negro of which so many interesting examples have, from time to time, been shown by Dr. Post.

F. S. BURNS,
Secretary.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held in the Amphitheater of the Polyclinic Hospital, Tuesday evening, February 19, 1907, at 8:30 o'clock, Dr. M. B. HARTZELL presiding.

A case of hypertrophic lichen planus, previously shown, was again brought to the Society's attention by Dr. STELWAGON. The patient was a young woman. There had been slight improvement but the itching was more or less persistent. There was considerable staining at the sites of the old lesions. The treatment consisted in the internal administration of mercury and arsenic and, locally, exposure to the X-ray.

A case of more or less generalized lichen planus, with vesicular and bullous lesions was exhibited by Dr. SCHAMBERG. The patient was a young woman and presented typical lesions of the disease. A peculiar feature of the condition was the change in the color of the diseased areas within the last few days, the change consisting in a substitution of the original cyanotic hue by a markedly red coloration. Another feature of interest was the occurrence of ulcerations of a very superficial character upon the legs, which seemingly was made worse by the internal treatment

which she had been receiving. Upon the withholding of this treatment (Donovan's sol.) a marked improvement was noted. According to the history, blebs had been present upon the body, and at present it was possible to demonstrate vesicles upon the legs.

A case of multiple idiopathic hemorrhagic sarcoma (*Kaposi*) was shown by Dr. M. B. HARTZELL. The patient was a rather elderly man and had had the affection for about fourteen years. The condition was situated upon the legs. The diagnosis was confirmed by the microscope. The case will be reported later in detail by Dr. M. B. Hartzell.

For Diagnosis. A case of a single lesion with several points of supuration, about the size of a five-cent piece, occurring upon the chin and accompanied by enlargement of the sublingual gland, was presented by Dr. SCHAMBERG. The patient was a boy, thirteen years of age, and the possibility of an extragenital chancre was entertained by Dr. Schamberg. There was no eruption upon the body nor any other of the usual concomitant signs. The lesion had existed in all about ten weeks, and had been under the observation of Dr. Schamberg for a period of four weeks. The epitrochlear gland on the right arm was palpable. The possibility of a suppurating tinea was suggested by several of the members.

A case of sarcoma of the soft structures surrounding the shoulder was exhibited by Dr. PFAHLER to demonstrate the efficiency of the X-ray in cases of this character. The patient was a man, thirty-one years of age and had had two operations for the removal of this growth, after each of which, the condition had returned worse than before. When first seen the growth had reached such proportions that it was considered inoperable. A photograph was shown to illustrate the condition at this time. After exposure to the X-ray for a certain period, the growth "broke down" and was removed, after which healthy granulations were formed and then began to assume its normal proportions. The general health at this time is very good. This case will be reported by Dr. Pfahler at a later date in detail.

A case of vitiligo associated with tachycardia and tremor, was presented by Dr. SCHAMBERG. The occurrence of vitiligo and exophthalmic goitre was discussed by Dr. Schamberg, and its possibility in this case was entertained. The patient was a man, more or less addicted to the use of alcohol.

A case of lupus vulgaris, previously shown, was again presented by Dr. STELWAGON. The lesion was small and situated upon the right eyelid and at the former meeting was decidedly cystic in character. The diagnosis at that time was not positive.

A case of scabies followed by persistent hypertrophic papular lesions in the region of the umbilicus was presented by Dr. BERNARDY by courtesy of Dr. STELWAGON. The possibility of lupus vulgaris was entertained.

Photographs of a case of blastomycosis, previously shown by Dr. FINK, were exhibited by Dr. SCHAMBERG to illustrate the marked improvement that had taken place from the local application of potassium permanganate solution.

A case of generalized bullous eruption, occurring on a boy, four and one-half years of age, was presented by Dr. SCHAMBERG. The patient had been vaccinated in September, 1906, and after a period of one to two months, the eruption made its appearance. At the present time, its distribution was observed to be more or less symmetrical, the flexures, neck, and genitalia being especially involved. The blebs were distinct and continuously present.

S. H. BROWN, M. D., *Reporter.*

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

March 19th, 1907.

A Case of Molluscum Contagiosum, in which the lesions were arranged linearly and very closely crowded together, was shown by Dr. S. H. BROWN. The patient was a young man and the condition was for the most part situated upon the chest. The linear arrangement suggested the possibility of the infection having taken place in the site of a scratch.

A Case of Dermatitis Exfoliativa was presented for the society's consideration by Dr. C. N. DAVIS. The patient was a Russian woman who gave a history of having had the condition for a period of about ten weeks. The desquamation and redness were almost universal. The condition upon the face and head presented elements of seborrheic involvement. There was a vague history of recurrences.

A Case of Tubercular Syphilide in a girl eight years of age, was exhibited by Dr. C. N. DAVIS. The condition was situated upon the right thigh and was manifested by the presence of two rather large characteristic ulcers. In addition there were well-marked Hutchinsonian teeth. The condition was of interest, largely from the fact that it had been regarded as a manifestation of tuberculosis by an attending surgeon.

Two Cases of Hereditary Hyperkeratosis of the Palms and Soles were brought before the society by Dr. M. B. HARTZELL. The patients were both young children, and both had marked hyperidrosis in addition.

Both were more or less eczematous. In many places the skin was thickened and somewhat ichthyotic. One of the patients had blebs upon the feet, suggesting an additional impetigo.

A Case of Molluscum Fibrosum was also shown by Dr. HARTZELL. The patient was a man about fifty years of age and was uncertain as to the actual duration of the affection, but said it had been present for a considerable length of time. The tumors were present in great numbers and varied in size from that of a pinhead to that of a hazelnut. They were distributed over the trunk and face.

A Case of Chancre of the Tongue was presented to the society by Dr. HARTZELL. The patient was a young man and gave a history of having had the condition for a period of only ten days. The lesion possessed all the characteristic features of the condition. There were no evidences of a secondary eruption as yet. The manner in which the infection had been acquired had not been determined.

A Case of an Obstinate Granulation upon the site of an infected wound was brought before the society by Dr. C. N. DAVIS. The possibility of an initial lesion had been entertained by Dr. Davis, but at present it was regarded as of a more benign nature.

A Case of Fibrous Overgrowth of the Skin in the region of the umbilicus following scabies, was again shown by Dr. STELWAGON. The presence of keloidal scars on the neck seemed to favor the condition being of the same nature.

A Case of Dermatitis Herpetiformis was shown by Dr. C. N. DAVIS. The patient was a middle-aged man and had had the condition for about eight months. The lesions were characteristic and the distribution was typical. The scapular regions and backs of the thighs were especially affected.

SAMUEL HORTON BROWN, M. D.,
Reporter.

MANHATTAN DERMATOLOGICAL SOCIETY.

55th Regular Meeting, December 7, 1906.

Dr. ROBERT ABRAHAMS, Chairman.

Lupus Erythematosus of the Scalp, with good results from the Hollander Treatment. By Dr. L. OULMAN.

Mrs. O., age forty-two years, noticed a patch of redness in the scalp two years ago; it remained stationary for a long time, and only began to get noticeably larger during the last four months. During this latter period also her hair has been falling out. When first seen

two months ago there was a palm-sized patch on the vertex entirely without hair; the borders were red and raised, towards the center it became paler, and in the middle it was white and evidently atrophic. Owing to the inability of the patient to come regularly to the clinic, the Hollander treatment, quinine internally and tincture of iodine locally, was systematically carried out. The result has been at least as good as we could have expected to attain by any other method. Extension of the lesion has stopped; the edges are less prominent and show less inflammation and scaling, and hair is reappearing on some of the areas most recently involved and which have not become markedly atrophic.

Dr. Pisko called attention to the fact that, as the lesion appeared at present, the only positive evidence of lupus erythematosus was the central atrophy; the margins had improved to such an extent that they had lost all characteristic marks of the disease. Dr. Abrahams had used the Hollander treatment in one case, and had failed to obtain any result at all. Dr. Gottheil had long given up internal treatment as useless. Neither actinotherapy nor the X-ray were hopeful; he had failed to get the results in later cases that he had gotten in one or two cases, when the Finsen treatment was first introduced. Destruction of the lesion with the least possible amount of scarring was now his rule; and carbolic and trichloroacetic acids were the means he employed.

Alopecia Areata of Malignant Type and Lingua Geographica. By Dr. W. S. GOTTHEIL.

Emily F., aged three, referred by Dr. Goodall, May 24, 1906. Alopecia began one year before; gradual increase in size and number of the spots, until there were twelve in all. General health good, though the child has always been delicate, and of poor appetite. Various measures tried by Dr. Goodall had been useless.

From May until the present time the lesions had been treated vigorously with pure carbolic acid, lactic acid, chrysarobin in various forms and strengths, bichlorid, resorcin, the high tension vacuum electrode, with no definite result. Lanugo and even normal hair has appeared on some spots; but in many places the new growth has fallen out again, new spots have appeared, and old ones have extended. At the present moment more than half the scalp is bald. General treatment has of course not been neglected.

On November 26th the condition of the tongue was accidentally discovered; the child had not shown the lesion when examined previously. It was first noticed shortly after birth, and long treated unavailingly as "sprue"; it disappears for days or weeks, and neither causes any subjective symptoms nor seems to be in any way connected with the state of the general health or that of the digestive organs. The dorsum of the tongue is covered with the circinate and irregular markings characteristic of the affection known as glossitis areata exfoliativa, annulus migrans, or lingua geographica. These markings form narrow elevated lines,

reddish grey in color, being apparently swollen ridges covered with swollen epithelium. They form irregular segments of circles or ovals from a few lines to half an inch or more in diameter. There is no trace of the excoriations along the lines that are mentioned by Rosenthal and others. The lines change rapidly, according to the mother's story, advancing, coalescing, and disappearing; this has been the case in most of the recorded instances of the disease, though in a few of them the lines have been stationary for long periods.

Glossitis areata seems a bad name for the affection, since most of the features belonging to an inflammatory lingual affection are absent; annulus migrans or lingua geographica, in our present state of ignorance of the nature of the affection seem to be better descriptive designations. It seems not to be syphilitic, as claimed by Parrot; in this case anti-luetic treatment, both local and general, was tried without avail. Fournier has classed it among the parasymphilitic affections. No parasite has been found, nor has any connection with disturbances of the nervous system been noted. It has been found in two successive generations of one family, so that it is possible that heredity plays some part in its etiology. Treatment of all kinds has been found useless, though some good results have been reported from the use of pure chromic acid. It is hardly needed since the lesion causes no trouble, and there is no danger of degenerative changes. The coexistence of alopecia areata with this affection makes this case of some interest; it being possible that some underlying neurosis is at the bottom of both.

Dr. Cocks had seen lingua geographica in a father and his child; in the former case the affection had been present for 25 years, and seemed to have no relationship to any condition of the internal organs; in the latter there were occasional outbreaks of the affection whenever there was any gastro-intestinal derangement. Dr. Pisko regarded the prognosis of the alopecia as very bad; in fact the younger the patient the worse it was.

Multiple Idiopathic Keloid treated with the High Frequency Current.

By Dr. A. C. GEYSER.

Female, age twenty-five years. Eight years ago was bitten by a dog in the gluteal region; keloidal scar left behind. Since that time the slightest traumatism, even a scratch, has sufficed to cause the development of a small keloidal tumor. There are a great number now, mostly small, but some as large as a five-cent piece, scattered over the body. Some have been treated with from one to six applications of high frequency discharges from a pointed metallic electrode, and show retrogressive changes to such an extent that only a thin scar is left. Reporter has no doubt that all will ultimately be cured by this method.

A. BLEIMAN, M. D., Secretary.

REVIEW
of
DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

REPORT ON PATHOLOGY

By CHARLES J. WHITE, M. D., Boston.

Spirochaete Pallida: Relation of, to Congenital Syphilis. *Ueber die Beziehungen der Spirochaete pallida zur kongenitalen Syphilis.* BUSCHKE UND FISCHER. (*Archiv für Derm. u. Syphilis.* Vol. 82, p. 1.

The article begins with an historical sketch of the work done by the pioneers Schaudinn and Hoffmann and concludes with a valuable appendix of 298 references which have been culled from the literature down to May, 1906. The chief epochs in this short but brilliant history were marked by the founders Schaudinn and Hoffmann, who discovered the spirochæte pallida in primary lesions, inguinal glands, in moist, genital papules, and in the juice of the spleen. Then followed Metschnikoff and Roux, who observed the organism in closed papules at a distance from the genital region and who afterwards noted it in the inoculation chancres of apes, and who finally described it in the blood of congenital syphilitics. Nöggerath and Stähelin and Buschke came next with the discovery of the spirals in the blood stream of secondary syphilis. And finally the application of the nitrate of silver stain by Bertarelli and Volpino and the improvement of its technique by Levaditi paved the way for the recent progress in the world's study of this absorbing theme.

A significant fact in this long series of papers is the absolute absence of the spirochæte pallida in all diseases save syphilis. Castellani's discovery of the organism in frambæsia is therefore especially significant and if accepted may establish the identity of this long-disputed condition with syphilis.

Buschke and Fischer's individual results consist in the finding of the organism *within* the cells, in an artificial blister of a secondary hyperæmic macule, in the lumen of blood and lymph vessels as well as in their walls; and finally in the production of a syphilitic chancre in an ape eighteen days after the inoculation of material from a seventeen-year old gumma.

The spirochæte pallida spreads from its original point of inoculation by the lymph tracts and blood vessels. They remain longest in the lymph glands, where they are found irregularly distributed. Their rapid disappearance from secondary lesions is due perhaps to the great cellular invasions.

Spirochaete Pallida in Tissues. *Histologische Untersuchungen über das Vorkommen der Spirochaete pallida in Geweben.* K. SAKURANE. (*Archiv f. Derm. u. Syph.* Vol. 82, p. 227.)

This is a careful study of nine cases of hereditary syphilis. The author recommends the following modification of Levaditi's stain:

1. Fixation in 10% formalin.
2. Immediate transference of 1-2 mm. thick sections to 96% alcohol for a night.
3. Several washings in distilled water.
4. Immersion in 1-5% silver nitrate solution for 3-4 hours at room temperature; and then for 3-6 hours in the oven at 38° C.
5. Reduction over night in the pyrogallol-acetone-pyridin mixture of Levaditi and Hoffmann.
6. Rapid imbedding in paraffin.
7. Section cutting.
8. Staining with polychrome methylen blue or with "Brillantgrün" extra (Badische Anilinsodafabrik). 2. Gentle washing in water. 3. Pure acetone or absolute alcohol.

By this rather complicated method the spirochaete pallida was found in greater or less abundance in the following tissues in eight out of these nine syphilitic babies or fœtuses, the ninth case proving free from the organism: the lungs, liver, spleen, kidney, adrenal glands, testicles, bone marrow, muscle, and in the walls of the umbilical vessels. Case IV was that of a child of ten days whose organs had been preserved in alcohol since 1887 and yet, after the lapse of nineteen years, the organisms were found in the lungs, liver, spleen, and in the bone marrow.

Perhaps still more striking were the successful inoculations into apes of portions of the bone marrow, testicle, lung, liver, spleen, kidney, and adrenal glands from Case I and of the blood from the heart and ovaries of Case II.

Leiomyoma of the Skin: A Case of Multiple. WALLACE BEATTY. (*Brit. Jour. Derm.* Jan., 1907. p. 1.)

The author adds what he terms the twenty-seventh recorded case to our dermatological literature. The striking features of this present example are the great multiplicity of its tumors and the absence of pain, except a mild smarting when the patient is exposed to extreme cold. Otherwise the nodules present their customary characteristics of pinkish-red or normal skin-colored, firm, round, grouped or scattered, hemp to pea-sized lesions on the upper parts of the body.

Histologically, again, the new growths exhibit their usual attributes and consist of parallel or interlaced bundles of smooth muscle fibers, which, from careful inspection, the author feels certain arise from the arrector muscles of the hair. Special stains corroborate the pathological findings that the neoplasm is one of muscle tissue and that elastin is present amidst the muscular bundles.

Lympho-sarcoid. *Lymphosarcoïde (une nouvelle variété de sarcoïde.)* H. GOUGEROT. (*Ann. d. Derm. et de Syph.*) 1906. p. 721.

Under the term sarcoid Kaposi originally included: 1, mycosis fungoides; 2, lymphodermia; 3, cutaneous sarcomatosis; and, 4, simple sarcoma of the skin. Since then Boeck has described his multiple, benign, disseminated dermic infectious granuloma (sarcoid) and Darier (*vide supra*) has snared off his hypodermic variety (sarcoïde sous-cutanée). To these minute subdivisions Gougerot comes forward and proclaims another addition with the title of lymphosarcoid.

The patient was a man of seventy, who presented upon his trunk disseminated nodules, small (4-6 mm.), hard, orange-red peripherally, violet centrally and surmounted by a translucent, gray point. Like lupus vulgaris these dermic nodules became more manifest by diascopy.

Histologically these tumors appeared as tuberculous masses of epithelioid and giant cells surrounded by a large intense reactionary zone of lympho-conjunctive cells—the whole a circumscribed intradermic nodule. The normal thick bundles of collagen have gone leaving delicate fibrils and the elastic tissue has likewise disappeared. The connective tissue cells are basophilic, tumefied, and polygonal with large nuclei. Prolongations from these cells anastomose with their neighbors. The cellular invasions are principally of lymphocytes while great oval, mononuclear, free connective tissue cells and a few plasma and mast cells are also seen. Endothelial changes appear in the adjacent minute vessels, with inflammatory reactions of the perithelial cells. No bacteria are found.

In closing his study Gougerot makes these histological distinctions: Sarcoid shows tubercle-like formations but no true tuberculous nodules are produced and the giant cells present are few in number. Lympho-sarcoma presents polymorphous elements. Lymphosarcoid (the tumors under discussion) is not diffuse, its reaction is one of inflammation of the connective tissue. Lymphadenoma is diffuse, its structures are identical and its infiltrations are true to one type. Leukæmia presents a monomorphous infiltration, diffuse and lymphocytic, in a delicate reticulum. Mycosis fungoides is clinically easy to differentiate, but histologically very difficult. Here infiltration begins at the subpapillary layer and is diffuse and forms no tubercles, while the connective tissue plays a passive rôle.

En résumé, lymphosarcoid clinically resembles disseminated miliary lupus, but histologically certain forms of mycosis fungoides. [This would not appear from the verbal descriptions in the text. Ref.]

Colloid Pseudo-Milium. *Deux cas de pseudo-milium colloïde familial.* P. L. BOSELLINI. (*Ann. d. Derm. et de Syph.*) 1907. p. 751.

There are two features especially unusual in this instance, for here we find two brothers, twelve and nine years of age, affected. Examples of

this disease are very rare and have always been observed in isolated instances in various countries, and always in elderly people whose occupations have exposed them for years to the elements. Apart from the two idiosyncrasies noted above, the present cases are normal in all respects.

From a histological point of view, a nodule from the elder boy reveals a solid homogeneous mass, occupying the whole derma and covered with a thinned epidermis, the cells of which are well preserved. The papillæ are gone and here and there the colloid mass seems to penetrate between the prickle cells with occasional homogenisation of nuclei and protoplasm. At other times a band of more or less normal connective tissue and elastin separates the colloid mass from the rete. The homogeneity of the corium increases with the age and size of the tumor. The immediately surrounding structures are quite normal.

To those who may chance upon such a degeneration in future, it may be interesting to note the following color reactions of the colloidal mass: yellow with picro-carmin; pink with carmine-alum; pale violet with hæmatoxylin; pale blue with pyronin-methyl green; blue violet with thionin; blue violet with polychrome blue; blue violet with thionin-acid orcein; red with hæmalum-acid fuchsin-picric acid; blue with saffranin-water blue; pinkish blue with polychrome blue-orcein; blue with acid orcein-polychrome blue-tannin orange.

It is from the incipient, almost imperceptible, nodules that one can learn the most regarding this strange metamorphosis. The Malpighian cells are normal but show much pigment. The papillæ are reduced to undulations. Elastin is irregularly distributed with short, lumpy, thick, anastomosis-free fibrillæ. Collagen remains normal except here and there in the subpapillary layer, where the fibers show abnormal reactions to stains, and there are swellings and disappearance of fibrils. Vessels show a mild vascular proliferation near the altered areas.

In older masses the author noted another unusual condition. Here and there he found a new epidermis forming underneath the colloid areas, and thus sequestration was produced and clinically this was observed in the boys in the completed stage as atrophy and pigmentation of the skin.

Bosellini agrees with Unna that the colloid change is a result of the combination of chemically altered collagen and elastin and noted all the steps in Unna's theory except elacin.

Syphilitic Peri- and Endo-lymphangitis. *Ueber Peri- und Endolymphangitis syphilitica.* PROF. DR. S. EHLMANN. (*Archiv f. Derm. u. Syph.* Vol. 81, p. 203.)

In a previous paper the author showed that there was an internal and an external infiltration of the lymph vessels of a syphilitic chancre, and that the same condition existed in the vessels which drained the lesion. The changes could be demonstrated most successfully by staining the elastic fibers associated with these lymph vessels.

In the present contribution Ehrmann continues the same studies by means of the injection of the blood vessels of circumcised foreskins with Berlinerblau-Leimmasse (for technique see *Archiv* Vol. 68) and of the lymph vessels with dialyzed oxide of iron. Sections then revealed massive infiltrations which could be seen within and without the lymph vessels. There were also infiltrations of the connective tissue quite irrespective of the vessels.

In the subpapillary network of lymph vessels these changes were most patent and here Ehrmann found between the endothelium and the perithelial elastic fibers thick connective tissue layers in which ran minute blood vessels. Such vessels are seldom seen in health, but in syphilitic chancres they are very common and richly distributed. Further hypertrophy of the connective tissue in these areas leads to occlusion with subsequent burrowing of secondary lymph passages through the thrombus.

Ehrmann states that these lymphatic changes are secondary to alterations in the papillæ of the skin where he noted newly formed blood capillaries and perivascular infiltrations in the connective tissue. This sequence means that the cause of syphilis reaches the connective tissue spaces first.

INFECTIVE GRANULOMATA.

By H. G. ANTHONY, M. D., Chicago.

Tuberculosis of the skin: The Report of a Special Form of, and a Discussion of the Subject of Cutaneous Calcification. Dr. ALFRED KRAUS. (*Archiv f. Derm. u. Syph.* Vol. lxxiv, p. 3.)

The author reports a case of subcutaneous tuberculosis in which calcareous deposits were present; though rare in the skin, such deposits are common in lymphatic glands and other organs of the body.

There was a family tuberculous history. The patient was fifteen years old. The tumors or nodules had been present six months; some of them had decreased in size.

The tumors were pea-sized and larger, situated just above the left carpo-ulnar articulation; two of them were connected by a linear lesion of the same character, presenting a dumb-bell figure. They were freely movable, not attached to the tendons as they did not move with the fingers. They were of a bluish color shining through the epidermis; very hard, dome-formed, not painful and not tender on pressure. The adjacent cubital lymphatic glands were enlarged, also the cervical axillary and inguinal glands; some of these glands were of a pasty consistency.

These characteristics are suggestive of sarcoma. The diagnosis was made by microscopical examination.

Calcareous deposits in the skin are usually produced by pathological conditions of the epithelium cells; they may be so minute as to be mistaken for micro-organisms; such deposits are found principally in lupus.

Lupus Follicularis Disseminatus: Two Cases of. H. J. SCHLASBERG.
(*Archiv f. Derm. u. Syph.* Vol. lxxiv, p. 22.)

The author first presents a brief résumé of all the cases of this form of lupus which have been reported.

He reports two cases which he has observed. The eruption is usually limited to the face and mucous membrane of the mouth. It consists of pin-head to split-pea sized nodules, brown-red in color, presenting almost no elevation, without systematic arrangement. Some of the nodules were covered in the middle with a small grayish-yellow crust, others were smooth and showed a slight central depression around a follicular opening. Here and there a nodule was perforated by a hair. The nodules felt soft and were not sensitive to the touch. Under glass pressure, a brownish-yellow transparent infiltration of gelatinous appearance was observed, which might easily be removed with a curette. Here and there, especially scattered over the cheek, were larger deposits, the size of a cent piece. They were a little scaly. The skin between the nodules was red and a little swollen. There was no retrogression or ulceration, or scars resulting from spontaneous involution.

On the mucous membrane of the upper lip of the mouth, are ten to twelve corn-sized nodules, slightly transparent, firm consistency, sharply outlined and freely movable. They are slightly sensitive. The epithelium covering one of these nodules is gray-white in color. The mucous membrane of the nose, throat, and mouth is not affected. There is a nodule, similar to those on the face, situated on the left thumb. The microscopical examination showed the same findings as in lupus, bacilli were found. Animal inoculations with negative result and tuberculin injection was also negative. The disease is to be differentiated from acneiform syphilide. The author believes that it is transported from internal organs.

Lupus Tissue: Inclusions in. PICK. (*Archiv f. Derm. u. Syph.* Vol. lxxviii, p. 185.)

The genesis of cell inclusions in lupus tissue which were described by Pelagatti as blastomycetes is still unsettled. They differ from blastomycetes in morphology and staining qualities.

The author first considered the possibility of these inclusions being the capsules of the bacillus tuberculosis, which Metschnikoff described, because they resemble the illustrations of these capsules. He concluded that they are not the same, because the inclusions are rare where bacilli are numerous, and plentiful where bacilli are not numerous.

He found lupus inclusions in only two cases out of thirty-seven examined, and in sufficient numbers to enable him to study them in but one of these cases. They are not products of the bacillus tuberculosis.

The patient in whom the inclusions were numerous, had primary tuberculosis of the mucous membrane, and secondary of the skin of the nose and of the back. In the transparent nodules and in the pustules he found those peculiar bodies which Loewenback, Oppenheim and Brandweiner described as blastomycetes. They presented themselves in various forms and showed segmenting mycelium threads. They could not be cultivated. They were present in many other pathological conditions, such as tubercular syphilide of the nose, epithelioma, rhinophyma, seborrhœa oleosa and alopecia.

In a word this micro-organism is in association with seborrhœa and is probably the flask-bacillus described by Malassez and Unna. Comparison established the fact that this bacillus is not the same as the micro-organism present in Dubreuilh's case, which has universally been accepted as a case of blastomycosis. Though present in large numbers in a case of lupus in which cell inclusions were also present, there is no relation between them and the cell inclusions.

In the zone of infiltration are to be found formations which are noticeable in their structure, and also because of their staining properties. They are polymorphous in form and size. Some are tubeform, having a length of ten red corpuscles. They inclose a lanugo hair. In one preparation, muriatic acid dissolved the tube, leaving a free lanugo hair. They are situated in the corium in the region of the sweat glands.

Lang first described these formations as Hassel bodies. Ssuda-kewitsch and Rona found inclusions in giant cells which they thought were degenerated elastic fibers. Pelagatti and Bowen thought they were blastomycetes, which possessed the power of attracting deposits of chalk.

It is not certain that these are identical with the bodies described by Gilchrist. The author concludes that they are not parasites, but deposits of iron and chalk around lanugo hairs.

Tuberculides: The Papulo-squamous. A. A. CIVATTE. (*Ann. de Derm. et Syph.* 1906, p. 09.)

The author reports three cases of that form of parapsoriasis which Jadassohn designated as dermatitis psoriasiformis nodularis, which he observed in Brocq's clinic.

On microscopical examination, he found atypical tuberculosis. For microscopical study, he excised a papule of the forearm and also a large flat scale surrounded by area of erythema. The papule was situated in the corium just below the papillary layer. There was present a compact infiltration around the horizontal blood vessels which was thicker in the center than on the periphery. This was obviously what caused the elevation. The infiltration rarely penetrated the papule and

extended upward to the rete. The papules were in general only œdematous. They maintained their dome-form. The fibrous bundles were separated and migratory cells were present in abundance.

Prolongations followed the blood vessels downward from the lower part of the infiltration. A study of these prolongations permitted the observer to form an idea of the architecture of the neoplasm and its distribution. Everywhere there was a peri-vascular distribution. The cohesion of masses was accidental, and caused by a richness of vessels in the locations where they were present.

They were caused by the entanglement of cylindrical infiltrations perforated always by a vessel, sometimes separated from each other by bundles of fibrous tissue and elastic fibers. The new-formed tissue did not destroy brutally the normal tissue, but infiltrated it, separating the bundles and gradually displacing them. The elastin was destroyed before the collagen, being attacked at first simply by the œdema in the papule urn before it was invaded by the infiltration. The elastic fibres were few in number and stained poorly.

This infiltration, which was distributed like a secondary syphilome, presented in its finer structure all the appearances of a tuberculous tissue. There was present epitheloid cells, giant cells, and lymphocytes. In places the masses of epitheloid cells are almost completely caseous. The histological elements of tuberculosis were complete, but there was rarely a follicular grouping. In the subpapillary region, were a few figures which recalled the follicle.

The arrangement of the cells was the reverse of the normal tubercle; in the center of the mass was a blood vessel surrounding which were lymphocytes, and external to these, epitheloid cells and giant cells in the outer zone.

This is the inverted tubercle and it extends along the vessels which remain permeable, rather than forming masses, and it increases in size from the central vessel at the expense of the new tissue rather than by peripheral extension.

Darier examined the sections and recognized the sarcoid of Boeck. The author believes that all cases of dermatitis psoriasiformis nodularis are tuberculides. No reference is made to literature. Pick (*Archiv*, Vol. lxi, p. 419), has reported a case of this kind which on microscopical examination proved to be a tuberculide.

Lupus: Tumor-forming. Dr. WILHELM HEUCK. (*Archiv f. Derm. u. Syph.* Vol. lxxxii, p. 9.)

Tumor-forming lupus is a special variety of cutaneous tuberculosis. It is not the same as lupus hypertrophicus; there is an absence of clinical resemblance; of retrogressive metamorphosis or ulceration, and histologically the tumors are not produced by excessive growth and confluence of tuberculous infiltrations or hypertrophy of connective tissue as in

lupus hypertrophicus. It differs from "*lupus pernio*" and "*lupus myxomatous*" not so much in appearance as in clinical history and in the histology.

Clinical History. There are fourteen cases of this variety of tumor on record. In five cases the disease began before the sixth year of life; in the other cases at various ages, even as late as the fiftieth year. The face is the most common location where they may exhibit a symmetrical location. They may be disseminated over the surface of an extremity, but usually there is a single tumor present.

In one case a tumor appeared after measles, in another case it followed synovitis of the knee joint. In four cases there was hereditary tuberculosis; in several of the cases the patients had pulmonary tuberculosis, and in a few cases other tuberculosis skin lesions were present.

Objective Symptoms. The tumor is well defined, livid-red in color, cherry to small apple-sized, often slightly scaly. Under glass pressure, tubercles may be detected in some cases. On palpation the tumor is found to be soft, of pillow consistency. The very slow growth, the absence of tendency to invade neighboring tissues, to undergo retrogressive degeneration, and the fact that it does not resemble other tuberculous lesions of the skin, are its distinctive features.

Histology. On removal there is found to be present a lobulated tumor situated in the subderma; it may be cystic. The tumor shows the typical structure of the tubercle with an unusual number of giant cells; tubercle bacilli were found in nine of the cases; reaction may or may not occur after injection of tuberculin. The manner of infection has not been determined.

BENIGN NEW GROWTHS.

By DAVID LIEBERTHAL, M. D., Chicago.

Molluscum Contagiosum in Man, A Contribution to the Knowledge of the Virus of. M. JULIUSBERG, (*Berl. Med. Wochenschr.*, 1905, xxxi, p. 1598).

Juliusberg attempted to ascertain if the virus of *Molluscum contagiosum* could be filtered. The material was secured from a patient of Jadassohn's clinic who was affected by cutaneous tuberculosis and accidentally disclosed eight mollusca on the right forearm. They were pressed out, ground with fine sand and bouillon and filtered through a Chamberland filter which was tested for impermeability of bacteria before and after use. Of the filtrate inoculations were made on three persons, but in only one produced, fifty days later at the seat of inoculation, sixty typical mollusca contagiosa.

Xanthelasma and Chronic Jaundice. T. B. FUTCHER. (*Amer. Jour. Med. Sciences*, 1905, cxxx, p. 939.)

The author reports three cases all of women, their respective ages being thirty-nine, thirty-nine, and forty-two years. The duration of the jaundice before the xanthomata appeared was eight months, eight years, and one and one-half years respectively. The cause of the jaundice was gallstones of the common duct in two cases, one of which also had biliary hypertrophic cirrhosis of the liver, and in the third case hypertrophic cirrhosis of the liver alone. In all three cases the eyelids were involved, in one these only. In the other two there were lesions on the extremities and to a less degree on the trunk. In two cases the xanthomata appeared on the hands first; in the third on the eyelids. The xanthomata were chiefly in the form of plaques in all the cases. There were a few nodular xanthomata in the first and second case. The distribution was strikingly symmetrical. In case I there were xanthomata on the gums, and in case II in the mucous membrane of the ducts. In case I there was a spontaneous disappearance of the xanthomata four and one-half years after their onset, and about four years after the gallstones were removed at operation. Two of the cases were operated on, and one came to autopsy, so that the causes of the jaundice were definitely ascertained. A careful histological study strongly indicated that the xanthomata are of endothelial origin.

Tumour of the Skin, A Mixed. H. VOERNER. (*Arch. f. Derm. u. Syph.*, 1906, lxxix, p. 187.)

Reports of so-called mixed tumors are rare. Such have been found in various organs, but not as yet with any certainty in the skin. The case is that of a man (age not given), on whose left ala nasi a tumor of the size of a pea has been growing for years. It appeared in the form of a pretty firm sphere, and as if implanted in the surrounding skin. The skin covering it was thinned and slightly movable. The clinical diagnosis was impossible. The microscopical picture was peculiar and revealed the nature of the growth.

A minute inspection of sections corresponding to the center of a tumor showed that the greater part of the latter was surrounded by a thin connective tissue capsule. The tumor, which distinctly presented itself as a globule not only macro- but microscopically, did not represent a solitary formation, but consisted of a series of units of roundish shape (secondary tumors). Between these there were weaker or stronger septa connected with the capsule (secondary sheaths).

The capsule and septa consisted of concentrically arranged slender fibers. The enclosures showed various forms of tissue. Connective tissue in different degrees of development, younger than round and spindle-cells, riper, in the form of wavy and elastic tissue and also transitory stages. There were also found fat-cells in small streaks and clusters,

partly young, partly developed and partly atrophic. Islands of cartilage were present from initial stages of development to that of calcification. Of the other tissues usually occurring in mixed tumors only that of muscle was wanting.

Papillomatosis. E. VOLLMER. (*Arch. f. Derm. u. Syph.*, 1906, lxxix, p. 293.)

The patient was a male, sixty and one-half years old, who a year previous to observation became afflicted with a skin disease. The latter was accompanied by severe itching and at the same time the mouth was affected. Various parts of the body, especially the flexor surfaces, turned brownish. He presented a most extensive development of warty growths. The conjunctivæ and the whole mucosa of the mouth were covered with numerous papillomata. The back, especially the nape of the neck, the axillæ, mamillæ, umbilicus, the flexor surfaces of the knees and the peri-anal region showed dense accumulations of flat warts and appeared dark brown. The eyelids, the chin and the nose adjacent to the alæ nasi presented pale and reddish flat warty elevations. The genito-crural region was thickly beset partly with red and brown papillomata partly with condylomatous vegetations, the latter especially on the scrotum and penis. All these growths were soft, while firm ones were observed here and there on the face and hands. Infection and trauma were excluded as causative factors and a congenital predisposition appeared probable.

From his investigations Vollmer in an earlier publication comes to the conclusion that acuminate condylomata are not to be considered epithelial proliferations producing secondary papillary elongations of the connective tissue, but that they represent papillomata, *i. e.*, cutaneous papillæ, hypertrophied in toto, causing subsequent vegetation of the epithelium. Accordingly he believes that the condylomata in this case, developing on a non-specific basis (gonorrhœal infection of the patient being excluded) formed part of the general papillomatosis. In papilloma, the connective tissue is active while the epithelium is passive, contrary to carcinoma in which the conditions are reversed.

BOOK REVIEW.

Surgery of Genito-Urinary Organs. By J. W. S. GOULEY, M. D., New York. Rebman & Co.

It is pleasant to welcome the accession of this new and systematic work on genito-urinary surgery. The author of this volume has been long and favorably known as a zealous worker in this field, and his fifty years' tenure of the position of Genito-Urinary Surgeon to Bellevue Hospital and his long experience as a teacher of these branches certainly enable him to write a book which is both magisterial and illuminating. The present volume is a sober, scientific

and practical treatise on genito-urinary surgery. Its perusal clearly shows that it was written carefully and deliberately, and that its teachings are those of a master of great profundity of wisdom and of a surgeon at once bold, cautious and practical. It is given to but few men to be able to write a treatise on these subjects with the wealth of experience, learning and of practicality possessed by the present author.

This volume is composed of twenty-eight chapters, written with terse brevity but ample fullness, so that almost every section consists of practical aphorisms. The first chapter is devoted to a general consideration of catheters, bougies and sounds, which is exhaustive and pregnant with information. The subject of catheterism and its accidents is an admirable prelude to this work and is handled exhaustively. The author very tersely and appositely says that when we examine records of cases we find that many of the ill-results of urethrotomy, cystotomy and lithotripsy are due to clumsily performed catheterism, causing false routes and then marring and even defeating the operation. It is then that the young surgeon begins to appreciate the importance of early practicing simple catheterism with the steel sound upon the dead. The teachings of this chapter are all that can be wished.

Important chapters on chronic urethritis, bulbo-urethral adenitis and orchitis lead to a consideration of the seminal vesicles and their inflammation, which are treated in a simple, lucid and practical manner.

Stricture of the urethra is described in all its phases with force and practicality. External perineal urethrotomy is of course fully considered, and it may be remarked that the world owes a debt of gratitude to Dr. Gouley, who devised, perfected and exploited this procedure, which has been a precious boon to all surgeons. It is well to emphasize here the mature views of the author on the treatment of urethral stricture, on which he tersely says that his experience with the different methods of treatment of narrow, dense, resilient strictures of the perineal region has led him to reject internal urethrotomy and to adhere more closely than ever to external urethrotomy as by far the safer and more satisfactory operation. It is a cheering thought that we rarely hear now of the vandalisms of the stricture cutters which were so common even a decade ago.

To the management of injuries of the urethra and their general consideration a succinct, illuminating chapter is devoted which will be read with interest and profit by surgeons.

The subjects of retention of urine during urethritis, from urethral stricture, and in elderly men are admirably treated in all their relations, and the treatment is admirable and practical.

The various affections of the prostate are well described and their general consideration is ample. The chapter on the enlargement of the organ is noteworthy for the broad, conservative manner in which it is treated and the terse practicality of its treatment. It perhaps is not generally known to-day that the author was the pioneer in this branch of surgery in America, and that his operation for prostatectomy was the starting-point of many recent operations by various surgeons who derived their inspiration from Dr. Gouley. The wisdom and conservatism of this author in the whole matter of prostatic disease impresses itself on the reader of each section and page.

The chapter on injuries of the bladder is one of the most important contributions to surgery which has appeared recently. The following example will give a good idea of the scope and importance of the subject:

"There is a feature in intra-peritoneal rupture of the greatly over-distended bladder which has a very important diagnostic and therapeutic significance, and that is the profuse haemorrhage which sometimes occurs, not from the rent but from the whole surface of the vesical mucous membrane; this excessive

bleeding being due to the sudden cessation of the mechanical pressure exerted upon the capillaries of the membrane by the cushion of urine. . . .

"In such circumstances, before attempting to close the vesical wound, it is well to look for blood-clots in the bladder and at once extract them, if necessary, through a cut made in the anterior wall, and then to use means for the speedy staunching of the hæmorrhage if not already arrested by the natural contraction of the muscular coat; otherwise the bladder is likely to become greatly distended with blood and so destroy the work of repair of the rent and perhaps end the sufferer's life."

Foreign bodies in the bladder and bladder tumors receive due consideration, and the operative treatment is clearly defined.

The nature, causes, effects and treatment of cystitis, called by the author uro-cystitis, are amply and satisfactorily described in a terse, practical chapter of forty-two pages.

Bladder contracture, its nature and treatment is considered in an illuminating chapter, which clears away many incorrect ideas. After considering the various causes, the author appositely remarks:

"A stone or foreign body in the bladder soon causes cystitis with spasmodic contracture; the stone or foreign body sometimes being firmly grasped by the convulsed bladder. Such cases often given no little trouble to lithotriptists, and induce many to resort to cystotomy. But this spasmodic contracture of the bladder can be brought under complete subjection by patient and gentle management in the course of ten days or two weeks, when it will be possible to crush the stone or extract the foreign body.

"Gradual dilatation of the contracted bladder is among the means of relief."

Bladder hæmorrhage is fully considered in a sound surgical manner, and the treatment of this often alarming condition is given in full detail.

The general management of cases of bladder sacculation is considered in a scholarly chapter, which ends in the following practical suggestion:

"Radical treatment is applicable only to diverticula that have not attained great dimensions. When, through the cystoscope, the orifice of a diverticulum is discovered and its exact site ascertained, the surgeon may undertake its extirpation; closing the vesical wound so securely as to prevent leakage of urine. Such an undertaking is warranted by the great achievements of the modern surgery of abdominal organs, and by the excellent results of suture of bladder wounds, etc."

The book ends with admirable up-to-date studies of bladder stones, lithotomy and lithotripsy, on every page of which the calm, practical surgical wisdom of the author impresses one.

To sum up, we may say that the volume is an admirable one, a veritable storehouse of useful, practical and concrete surgical knowledge. It is such a book as one would expect from its learned author, who is to-day recognized as the Nestor of genito-urinary surgery in America.

ROBERT W. TAYLOR, M. D.

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THE ACRODERMATOSES OF SCROFULA, HYPERHIDROSIS AND GRANULOSIS RUBRA NASI.

Professor of Skin and Venereal Diseases, Chicago Polyclinic.

By HENRY G. ANTHONY.

DEFINITION OF SCROFULA.

SCROFULA is not tuberculosis; it is not faulty metabolism; it is not even a predisposition, idiosyncrasy, or diathesis. It is a chronic pyogenic infection of the mucous membrane of the nose, which may spread in several directions. Extending through the eustachian tube, it may affect the middle ear and after rupture of the tympanum, it may infect the skin of the external ear region producing *eczema impetiginosum*, or through discharge from the anterior nares, it may produce fissures of the alæ nasi and inflammation of the upper lip; it may extend along the posterior nares to the pharynx and tonsils, and possibly to the larynx and bronchi; it may invade the lymphatics and produce enlargement of the lymphatic glands of the neck, and then becoming generalized, the infection may involve the glands in the groin and other parts of the body.

When carried to the eye by the finger, chronic nasal pyogenic infection or scrofula produces "Scrofulous Keratitis," while when the micro-organisms or more probably their toxins are absorbed and affect the eye, they produce "Phlyctenular Conjunctivitis."

The disease may heal as it extends. The clayey complexion, the frequency with which the child catches cold and the recurrent febrile attacks which are often designated as "malaria" and "biliousness" are valuable symptoms of generalized infection.

With such a widespread infection, it is not strange that older writers emphasized the fact that there is a great variation of symptoms in the different cases. There is no hereditary predisposition

to the disease. The difficulty in comprehending this conception of scrofula lays in the fact that chronic pyogenic nasal infection is an *atrium* for the bacillus tuberculosis, and at the present state of our knowledge, we cannot determine in any given case, in which there is an absence of tuberculous lesions, whether a secondary tuberculous infection is or is not developing.

The proofs that this is the correct view to take of the cases which former writers designated as scrofula, have been submitted by Cornet, Anthony and other recent writers.

ECZEMA AND IMPETIGO.

In children with chronic pyogenic nasal infection or scrofula, I observe two common forms of eruption of the skin—impetigo or impetiginous eczema, which is best explained by the theory that it is caused by nasal micro-organisms being inoculated into the skin by the fingers, or by direct extension from the nose; and second, a form of eczema, which consists of superficial erythematous plaques which are slightly scaly, rather well defined and seldom larger than a silver dollar. These plaques occur most frequently on the faces of children, but they may be present on any part of the body. They are not lesions of seborrhoic eczema. They are best explained by the hypothesis that they are caused by toxins of the micro-organisms rather than by the micro-organisms themselves.

Adenoids are one of the many phases of chronic pyogenic nasal infection and where they are present as the sole manifestation of the disease without involvement of the middle ear, curetting affects these erythematous plaques. Phlyctenular conjunctivitis may be caused by curetting of nasal adenoids.

THE ACRODERMATOSES OF SCROFULA—HYPERHIDROSIS.

There are two forms of hyperhidrosis of the hands and feet: one associated with neurasthenia or other nervous disorders, in which there is a profuse perspiration with warm hands and feet, and the other in which there is not alone increased perspiration, but also passive congestion. In this form the hands and feet are cold, clammy, and there is a moderate degree of perspiration, with a normal appearance of the skin except on exposure to cold when the fingers assume a bluish color.

This form of hyperhidrosis may occur in association with surgical tuberculosis, in which there is a small focus of tuberculosis, such as glandular, joint, periosteal or tendon sheath tuberculous

affections; it may be associated with papulo-necrotic tuberculide or folliculis, and accompanied by asphyxia of the ears especially in winter; it may be present also in chronic pyogenic nasal infection of childhood.

In cases of nasal adenoids, I have frequently observed this form of hyperhidrosis. When questioned, mothers have often stated that they have not observed any increased sweating of the hands and feet of the affected child, and they have been greatly surprised when we have demonstrated the moisture of the stockings and the cold, moist feet. The form of hyperhidrosis here under consideration, I designate as "Toxic Hyperhidrosis." It is just as rational to assign this acrodermatosis to absorption of toxins from some distant *focus* of disease, as it is to entertain the belief, which is now quite general, that chilblains are due to tuberculous toxins. It is interesting to note that Bazin designated chilblains as *Scrofule benigne*.

That long continued, passive congestion and hyperhidrosis should affect the growth of the nails in some cases, is not surprising. The first effect is a thinning of the nail, the condition approaches, if it is not identical with what has been described by Hyde as the "Egg-shell nail." Other changes may be present in addition to thinness; the nail may be perfectly flat, having no lateral convexity, hence the terminal phalanx may be wider than normal, producing a form of club finger, which might easily be mistaken for the club finger of congenital heart disease.

In one instance, all the nails of both hands, but not of the feet, were convex, but thinner than normal, and presented in the middle of the outer third of the nail a groove extending in the direction of the long axis of the nail.

GRANULOSIS RUBRA NASI.

Macleod states that the pathogenesis of this disorder is still *sub judice*. To establish priority, Hallopeau has published a note stating that he does not agree with Jadassohn that the disease is an infection, but that he believes it is an angio-neurosis closely related to asphyxia of the extremities of which it is only a location; it may occur in families. The reasons for his belief, he will present at some future time.

A study of the cases that have been reported shows that the disease has not often been observed in healthy children. Most of the cases have occurred in tuberculous patients, and those suffering

from chronic pyogenic nasal infection, or other forms of chronic infections with pus micro-organisms. Furthermore, the disease has usually been accompanied by chilblains or toxic hyperhidrosis of the hands and feet. In the Herrman series of cases, it is interesting to note the frequency with which mention is made of "cold hands" in the histories.

Jadassohn says that it is impossible to determine whether the disorder begins with excessive sweating, or whether inflammatory changes are the first evidence of disease; this is, in my opinion, not an essential question. The point of importance is to recognize the fact that we have here an acrodermatitis which is a combination of asphyxia and hyperhidrosis, and that in one case asphyxia predominates and in another hyperhidrosis, and that the two may vary at different times.

The hypothesis which it seems to me best explains this disorder is that like its associate, toxic hyperhidrosis, of the hands and feet, it is caused by toxins derived from distant *foci* of infection, most frequently probably from chronic pyogenic nasal infection, but also from other chronic pus infections, and from small deposits of tuberculosis in glands, joints, etc., some of which may not have attained sufficient size to enable the clinician to detect their presence.

How closely my views coincide with those of Hallopeau, it is impossible to determine from his priority note, but it is apparent that our opinions are similar. My views were formed independently of him. Six months before the publication of his note, I read an article on scrofula at the meeting of the Illinois State Medical Society held at Rock Island, Illinois, in June, 1905, in which I stated that both hyperhidrosis and *granulosis rubra nasi* were toxic manifestations of chronic pyogenic nasal infection.

For valid reasons the editor of the Illinois State Medical Society did not publish my article until May, 1906, which was after Hallopeau's note appeared.

I have observed the following cases:

A girl, fourteen years old, was brought to me because of psoriasis. Her father had psoriasis; her mother was perfectly healthy; there were no other children in the family; she had always lived in the country. She had a cough and very copious expectoration which had been present continuously since she was five years old, and also some heart lesion, which the mother stated has been variously diag-

nosticated. The expectorations had been examined in laboratories a number of times, but the bacillus tuberculosis had never been present. She had just recovered from measles.

On examination, I found a well nourished, normally developed girl. There were no areas of dullness in the lungs, râles were to be heard everywhere; there was a copious expectoration of purulent material. The boundaries of the heart were normal and the apex-beat was normal in location, and there were no heart murmurs, but the heart's action was irregular and intermittent.

The alæ nasi were fissured; the mucous membrane of the nose was inflamed; the tonsils had been removed, and the glands in the neck were enlarged. Patches of psoriasis were present in various locations. The hands were cold and moist from perspiration; there was a slight degree of asphyxia. The fingers were extremely long, they attracted attention the moment the child entered the room; they were not clubbed. The finger nails were very thin; they showed an increased convexity, they presented more of a round than an oval shape; they were like watch glass crystals set on the terminal phalanges of the fingers. They were thin, smooth and shiny, but not brittle.

Over the cartilage area of the nose, there was a slightly erythematous base studded with brownish-red papules in association with the sweat glands; the nose felt cold.

Diagnosis: Psoriasis, chronic pyogenic nasal infection in process of recovery, and chronic purulent bronchitis as toxæmia, granulosis rubra nasi, toxic hyperhidrosis and Marie's Osteoarthropic hypertropiante pneumique and irregular and intermittent heart's action.

CHRONIC PYOGENIC NASAL INFECTION IN ADULT LIFE.

With rare exceptions, the infection heals in adolescence, but occasionally it persists and produces symptoms in adult life, as the following history illustrates:

The patient is a seamstress, twenty-five years old; she was born in Germany; when six years old she had measles. At the age of seven years, she came to America with her parents; she has never been sick since being in our country. She had some nasal trouble following the measles and although constantly present, it did not annoy her until she was fourteen years old, at which time, the upper lip became excoriated from nasal secretion. Her general health has always been excellent.

Status Praesens: The patient has numerous patches of erythematous scaly eczema on the face, neck and arms; she says they have been present about two months and during the past four years she has repeatedly had a similar eruption which appeared and disappeared without treatment. The glands in the neck are enlarged, there is a discharge from the middle ear, there is a phlyctenular conjunctivitis of the left eye which patient states she never had until four months ago. The mucous membrane of the nose is inflamed and swollen, on the left side deep in the posterior nares is, what at first view appeared to be a polyp, but on thorough examination, proved to be swollen mucous membrane. The hands and feet are moist and cold, the nails are normal, and there is no eruption present. She experiences a constant burning sensation of the feet which is very annoying and necessitates the removal of her shoes, and the use of large slippers while at work. The pulse is regular, 74 beats per minute. She is not aware that any other member of her family has a slow pulse. The urine is normal and there is no disease of the bladder.

Burning of the feet is most frequently caused by disease of the bladder, such as cystitis resulting from catheterization after childbirth in women, and from enlarged prostate in man.

It has been constantly stated in the text-books on eye diseases for the past twenty-five years, and it is still stated, that phlyctenular conjunctivitis is always associated with scrofula.

In most cases observed in adult life, this form of conjunctivitis persists from childhood, but in this instance the disease first appeared in adult life, which is an extreme rarity. It is interesting to note that the pulse was 74, whereas we would have expected to have found it at about 86 in a woman of her size and build.

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DERMATITIS HERPETIFORMIS IN CHILDHOOD: REPORT OF A CASE IN A CHILD OF SIX YEARS.

By FRANK CROZER KNOWLES, M. D., Phila.

THE object of this paper is not a scientific research into the differences or relationship between the hydroa bullosum of Bazin, described in 1862, or the hydroa herpetiforme of Tilbury Fox, described in 1880, or the dermatitis herpetiformis described by Duhring in 1884, but it is as complete a statistical account of this multiform, herpetic disease in childhood as I have been enabled to obtain. In regard to the origin of this name and its synonyms or subdivisions, I refer the reader to the excellent papers of Duhring and Brocq, and to Jamieson's able address on this subject. As the result of my search in literature, I have found fifty-seven cases of this disease reported by forty-one different authors. Eighteen of this number were reported from France, eleven from Germany, thirteen from England, ten in our own country, and two from the Netherlands. No endeavor has been made to cull out the various doubtful diagnoses, but all cases reported under dermatitis herpetiformis or Duhring's disease have been included. Brumund and Van Dugteren each reported a case of this disease, but unfortunately the reference could not be found.

Etiology. In the great majority of these cases the children were in good physical condition; in only twenty-six was there even a suggestion as to causation. A neurotic tendency was present in the patient or the parents in four cases (Audry, Bulkley, Vidal, Dauchez). Hereditary or family idiosyncrasy was present in seven cases (Barrois, Unna, Thilliez); four of these occurred in males in the same family (Unna), and two, a brother and sister, in another family (Thilliez). A previous rheumatic history was discovered in three cases (Vidal, Robinson, Crocker). Pertussis seemed to have been casual in one case (Hitchins), while diphtheria was the forerunner of another (Sherwell). In one case exposure to the sun and prolonged wading seemed to have been responsible (Jamieson). Phimosis was apparently the cause in one case, for the eruption entirely disappeared after a circumcision (Roussel). Nephritic disease was present in two cases, polyuria in the one (Barrois), and albuminuria

in the second (Haslund). A rachitic chest and tuberculosis of the lungs was reported in one case (Meynet and Péhn). Sepsis was a prelude in one case, as the disease followed an infected wound of the scalp (Taylor). The toxins produced by vaccination were credited as being responsible in four cases, as the eruption appeared in three weeks (Stelwagon); in six weeks (Malcolm Morris); in seven weeks (Becker and Pusey); and in four months (Ittmann and Ledermann) following vaccine inoculation. Twenty-seven of these cases occurred in males (Haslund, Roussel, Palm, Stelwagon, Schadeck, Vidal, Thilliez, Sherwell, Heuss, Robinson, Bowen, Gottheil, Sequeira, Galloway, Dauchez; Unna and Jamieson each five cases; Pringle two cases); sixteen were reported in females (Durand, Audry, Bulkley, Ittmann and Ledermann, Becker and Pusey, Thilliez, Barrois, Meynet and Péhn, Taylor, Jamieson, Crocker, Bowen, Gottheil, Pringle, Graham Little, Hope Grant); and no sex was recorded in twelve cases. The youngest reported case occurred in an infant of thirteen weeks (Malcolm Morris). The other cases were under observation at five months (Vidal); at seven months (Thilliez); at ten months (Dauchez); at eleven months (Sherwell); at seventeen months (Heuss); at eighteen months (Payne); at two years (Jamieson); at two and one-half years (Jamieson); three cases occurred at three years of age (Roussel, Jamieson, Pringle); two were seen at four years (Hitchins, Bowen); one at five and one-half years (Audry); six cases at six years (Hebra, Arning, Schadeck, Bowen, Pringle, Galloway); three cases at seven years (Jamieson); four were noted at eight years (Haslund, Palm, Meynet and Péhn, Hälle); two at nine years (Unna, Gottheil); six cases at ten years (Bulkley, Thilliez, Barrois, Robinson, Sequeira, Graham Little); one case was recorded at eleven years (Stelwagon); four cases at twelve years (Unna, Danlos, Taylor, Gottheil); four also at thirteen years (Becker and Pusey, Thilliez, Crocker, Pringle); one case was observed at fifteen years (Ittmann and Ledermann); and the last of the series was reported at sixteen years of age (Durand). Unna also records three cases as occurring during infancy, no age being specified. Hälle reported four cases, in which the eruption appeared shortly after eight years of age. In Hope Grant's case no age was recorded.

Symptoms. Prodromal symptoms were noted in nine cases, consisting of malaise and slight fever in six (Danlos, Bowen, Arning, Stelwagon, Vidal, Thilliez); irritability and sleeplessness in one case (Becker and Pusey); loss of appetite and insomnia in another (Unna); and vomiting in the last (Taylor).

The classification of the chief type of eruption present in each of these has been extremely difficult, as the character of the lesions frequently changed with each recurrence. The erythematous eruption was an accompaniment of almost every case, and it therefore has not been counted as a distinct type, excepting in those cases classed as multiform. The vesico-bullous was the predominant type, twenty-three of these cases being described (Graham Little, Malcolm Morris, Sherwell, Danlos, Taylor, Crocker, Durand, Audry, Becker and Pusey, Stelwagon, Payne, Vidal, Thilliez, Pringle, Sequeira; Bowen, Jamieson, Unna, and Gottheil each two cases). The multiforme type, where four or more distinct primary types of eruption were present, consisted of twelve cases (Pringle, Meynet and Péhn, Hälle, Heuss, Hitchins, Haslund, Roussel, Bulkley, Ittmann and Ledermann, Barrios; Thilliez two cases). Seven cases have been recorded of the papulo-vesicular variety (Pringle, Galloway, Hope Grant, Dauchez, Robinson, Hebra, Schadeck). Two cases with chiefly vesico-pustular lesions were also in this series (Palm, Arning).

The initial site of attack has been recorded in but a few of these cases. The extremities seem to have been the most vulnerable, and almost invariably the lower limbs. Six cases were recorded as starting in this location (Hälle, Taylor, Robinson, Sequeira, Hitchins, Arning). The neck and the face were first attacked in four cases (Meynet and Péhn, Danlos, Hope Grant, Becker and Pusey). The genitalia was the site of predilection in two cases (Gottheil, Audry). Twenty cases of the generalized distribution of these lesions have been recorded in the fully developed attack (Palm, Bulkley, Arning, Becker and Pusey, Vidal, Thilliez, Barrois, Sequeira, Hope Grant, Hälle, Sherwell, Danlos, Taylor, Hitchins, Haslund, Hebra; Unna and Pringle each two cases). The extremities, chiefly the lower, have been involved in nine cases (Graham Little, Dauchez, Malcolm Morris, Meynet and Péhn, Heuss, Durand, Stelwagon; Thilliez two cases). The extremities and genital region have been chiefly affected in four cases (Gottheil, Roussel; Jamieson two cases). The most marked site was the face and the extremities in four cases (Gottheil, Galloway, Crocker, Ittmann and Ledermann). The face, genitaliæ, and extremities were the chief sufferers in three cases (Audry; Bowen two cases). The trunk was chiefly involved in two cases (Robinson, Schadeck). The face was notably affected in one case (Pringle). In one of the generalized cases the soles of the feet were involved (Becker and Pusey); in another the palms of the hands and the soles of the feet were both affected (Haslund); while in a third case the

scalp was markedly attacked (Pringle). In twelve cases the distribution was not specified (Payne; Unna three cases; Jamieson and Hálle each four cases). A tendency to grouping was noted in fourteen cases (Haslund, Roussel, Unna, Schadeck, Vidal, Thilliez, Bowen, Gottheil, Pringle, Galloway, Hope Grant, Meynet and Péhn, Robinson, Crocker).

The mucous membranes were attacked in eight cases, the tongue in two cases (Meynet and Péhn, Malcolm Morris); the tongue and the lip were involved in one case (Hope Grant); the roof of the mouth was affected in another case (Taylor); in three of those reported the lips were attacked (Danlos, Durand, Barrois); one patient also suffered from lesions on the tongue and the roof of the mouth (Becker and Pusey).

Itching was a prominent symptom in twenty-one of the cases recorded (Haslund, Hebra, Durand, Audry, Roussel, Palm, Bulkley, Arning, Schadeck, Vidal, Pringle, Dauchez, Sherwell, Heuss, Robinson; Unna, Thilliez, and Gottheil each two cases).

Pigmentation following the eruption was reported in thirteen cases (Heuss, Jamieson, Robinson, Gottheil, Arning, Ittmann and Ledermann, Barrois, Roussel, Bulkley; Thilliez and Unna each two cases). Scarring was noted as a sequela in two cases (Jamieson, Graham Little). Thickening of the skin was recorded in two cases, over the areas previously attacked (Thilliez). In one case the disease was accompanied by a large number of variously sized leucodermic spots (Bulkley).

An eosinophilia was found present in those cases in which a differential blood count was made. This careful examination was performed in only five cases. Barrois found twelve per cent. of eosinophiles, in the blood, in his case; Roussel recorded thirty per cent.; Graham Little reported 4.7 per cent.; Meynet and Péhn discovered thirteen per cent. at one examination and eighteen per cent. at another; Bowen carefully observed that during the height of an attack, in his case, 20.5 per cent. of eosinophiles were present, while during the interim but 4.5 per cent. were found.

Prognosis. As most of these cases were under observation but a few months it has been most unsatisfactory in trying to determine how long each attack lasted, the length of freedom before a recurrence, and the number of months or years this idiosyncrasy to recurrent attacks persisted in each patient. A positive cure without a tendency to recurrence has not been recorded in any of these cases.

Some few of these patients were under observation for many months or years, but in most of the cases the history given by the parents had to be the guide as to the duration of this condition. The history given by the parents or the personal observation of the various authors shows that twenty-two of these cases lasted for less than one year. The duration for two of the same being four weeks (Hebra, Danlos); one case lasting for five weeks (Crocker); one case for seven weeks (Galloway); two cases for two months (Jamieson, Heuss); one case persisting with recurrences for three months (Thilliez); four cases were observed for four months (Audry, Pringle, Graham Little, Meynet and Péhn); one case was noted for five months (Hope Grant); three cases were followed for six months (Jamieson, Sherwell, Thilliez); one case lasted, recurrently, for seven months (Dauchez); four cases recurred for eight months (Stelwagon, Arning, Bowen, Barrois); while two others lasted for ten months (Pringle, Sequeira). Seventeen of the cases lasted, with recurrences, for one or more years. One case lasting for one year (Bowen); another case for thirteen months (Gottheil); one case persisting, recurrently, for one and one-half years (Haslund); one case was prolonged for two years (Heuss); another case was observed for two and one-half years (Becker and Pusey); six cases were followed for three years (Roussel, Ittmann and Ledermann, Palm, Hälle, Robinson, Thilliez); one case lasted for five years (Gottheil); one case had a protracted course of six years (Bulkley); another case persisted, with recurrences, for seven years (Pringle); one case was carefully followed for nine years (Hälle); according to the parents, another case had relapsed at long and short intervals for thirteen years (Durand); in the last case, the parents' history gave a persistent tendency to relapse, lasting almost twenty years (Vidal). Two of the cases also lasted for some years, the length of time not being given (Hälle). Five other cases persisted for some years, with a marked tendency to outbreak only during the summer months (Unna). The duration in five cases has been unobtainable (Malcolm Morris, Hitchins, Taylor, Payne, Schadeck). It is a noticeable fact that the general health was very little impaired in any of these cases, even at the acme of attack. Two of these cases ended fatally, but by intercurrent disease; one from septicæmia (Taylor), and the other from pertussis (Dauchez).

The following case was seen in the skin clinic of Dr. Arthur VanHarlingen at the Children's Hospital:

A nervous and somewhat delicate looking girl, of six years of age, came to the skin dispensary of the Children's Hospital on January 4, 1907. The child had been healthy until two years previously, when she became extremely nervous, irritable, and frequently cried out in her sleep. The mother also stated that the child had suffered from rubeola the previous May. No other disease of childhood had been present. The child had been successfully vaccinated seven weeks before this eruption appeared. This outbreak started on October 28, 1906, with erythematous plaques on the inner side of the thighs and genitalia; these in the course of twenty-four to forty-eight hours developed vesicular lesions on the surface, tending to group and to become bullous. These lesions spread to the buttocks, lower abdomen, upper thighs, and to the popliteal spaces. Some few vesicular lesions were also present on the face, forearms, and the lower legs. Itching and burning were not marked symptoms, excepting at night. This attack lasted for six weeks, with a continuous crop of new lesions, the old eruption drying up into crusts, finally falling off and leaving pigment marks. The patient spent two weeks of entire freedom following this attack. This new outbreak started two days before the patient was brought to the dispensary. Pigment marks from the last attack, varying from a dusky brown to a copper red were in evidence, chiefly around the genitalia, the inner thighs, the lower abdomen, and on the buttocks. Erythematous spots with pin-point vesicles on the surface were noted on the forearms, the calves of the legs, the popliteal spaces, the upper and chiefly the inner thighs, the vulva, the lower abdomen, and on the gluteal region. Some few lesions of the same character surrounded the mouth, and were also on the forehead. These pin-point vesicles became in a few hours split-pea in size; in twenty-four to forty-eight hours some of these lesions became pustular while the others became hazel-nut and larger, irregularly shaped bullæ; in another twenty-four to forty-eight hours these lesions dried to crusts. The vesico-bullous lesions were situated chiefly on erythematous areas, but some few arose from the sound skin. Most of this eruption was grouped and symmetrically distributed. Itching and burning were not marked, during this recurrence, excepting at night. Pigmentation was noted at the site of these lesions after the crusts had fallen off; it varied in color according to its duration, pinkish during the first few days, and then becoming gradually dusky brown. At the outbreak of each attack the girl suffered from slight fever, malaise, and extreme irritability. The great severity of this attack spent itself in two weeks' time. The

child is still under observation, however, and a few new lesions, erythematous and vesico-bullous, are still appearing. This last recurrence has already lasted over nine weeks. Two differential blood counts have been made; the one at the acme of the attack showed, hæmoglobin 88 per cent., erythrocytes 5,040,000, leucocytes, 8,160, neutrophiles 23.7 per cent., lymphocytes 36.1 per cent., large mononuclear, 4.6 per cent., transitional 2.6 per cent., eosinophiles 33 per cent.; during the decline of the outbreak the following percentages were found: neutrophiles 40 per cent., transitional 6 per cent., large mononuclear 20 per cent., lymphocytes 13 per cent., and eosinophiles 21 per cent. The urine was examined several times, but nothing of note was found, excepting an increased quantity of indican. The urine was not of a Burgundy-red color at any time during the attack. The serum from some of the vesicles was examined, but no eosinophiles were found.

The chief points of interest in this case are: that the eruption began but seven weeks after vaccination, the large percentage of eosinophiles in the blood, and the excess of indican in the urine. Funk was the first observer to call attention, by a short note, to the eosinophilia in dermatitis herpetiformis. Leredde and Perrin were the first, however, to write a complete article on the eosinophiles in the blood, tissues, and sera of vesicles in Duhring's disease. Both Loth and Engman have recently called attention to the excess of indican in the urine in this disease. McCall Anderson has pointed out the presence of hæmatoporphyrin, giving the urine a Burgundy-red color in dermatitis herpetiformis. This phenomenon was not present in this case.

This patient was exhibited before the January meeting of the Philadelphia Dermatological Society, and the majority of the members agreed with the diagnosis. Some few of those present thought that it more aptly came under the heading of bullous eruptions following vaccination (Bowen, Stelwagon).

Summary. A neurotic individual or family tendency, a lowered condition of the general economy, caused by the exanthemata, by sepsis, by various toxins, by exposure, or by disease of the various internal organs, seemed casual in almost one-half of the cases. The male sex was involved in the majority of the cases. The younger the age the fewer the cases.

Prodromal symptoms were usually absent, but if present were

mild. The usual type of eruption recorded was the vesico-bullous, next most frequent the multiform, and infrequently the papulo-vesicular or the pustular.

The usual distribution was the generalized, the face and the extremities being chiefly involved. The mucous membranes, the soles of the feet, the palms of the hands, and the scalp, were rarely affected. Grouping was not a marked characteristic.

Itching in a severe form was not present in the majority of these cases. Pigmentation as a sequela was present in but a few of the cases. The disease ran a chronic course, with frequent recurrences, in the great majority of the cases.

Prognosis as to health was favorable, but as to cure uncertain.

There are four chief points of difference between dermatitis herpetiformis in childhood and in adult life:—

1. Itching in the former as a marked symptom is usually absent; twenty-one out of these fifty-five cases having this pruritus markedly.

2. Marked multiformity of the eruption is usually absent; but twelve cases having this prominently present.

3. Grouping was found but seldom in those patients under puberty; fourteen cases having this marked characteristic.

4. Pigmentation as a sequela was present in less than one-quarter of the cases. Thirteen cases were recorded as having this condition noticeably present.

In closing I wish to express my thanks to Dr. VanHarlingen for the privilege of reporting this case, and also to Dr. H. C. Carpenter and Dr. W. P. Vail for the urine and the blood examinations.

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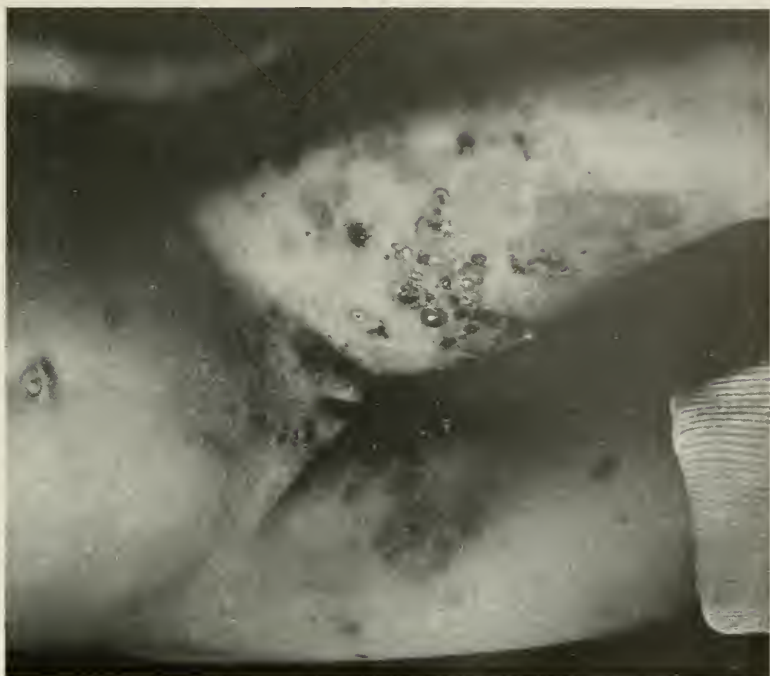


FIG. 1.



FIG. 2.

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AN UNUSUALLY EXTENSIVE FOLLICULITIS AND PERI-FOLLICULITIS: ITS CONNECTION WITH THE SO-CALLED TUBERCULIDES.¹

By WILLIAM B. TRIMBLE, M. D.

Chief of Clinic and Instructor in Diseases of the Skin, University and Bellevue Hospital Medical College and Assistant at the N. Y. Skin and Cancer Hospital.

WHEN this patient first came under my observation he exhibited many active lesions, especially on the back, chest and scalp. Very few of these are shown in the illustrations, as unfortunately, a photograph was not made until nearly a year afterwards, and in the meanwhile the man had been much benefited by treatment. The extensive scarring, however, will show what incursions the disease has made on the patient's integument.

Upon first inspection it was impossible to classify the eruption; in many ways it resembled an ulcerating tubercular syphiloderm, although the patient denied any history of the kind. Many of the individual lesions were not unlike those of scrofuloderma, but the widespread distribution of the eruption would tend against the latter diagnosis.

Before pursuing further study of the case, it was deemed wise to put the patient on increasing doses of mercury and the iodides, to exclude the possibility of the lesion being of a syphilitic nature. This was done for several months with no appreciable effect. Four biopsies have been made, sections of skin taken from the back, chest and buttock. The pathological examination was made by Dr. E. C. Jagle, serial slides being studied by both the pathologist and myself.

The clinical history of the case, with the microscopical findings, is as follows:

CLINICAL HISTORY.

J. L., born in the United States, of Scotch parentage, 46 years of age, a lumberman by occupation; height, 6 feet 1½ inches; weight, 183 pounds; in appearance he is of the tall, lank build; of the blond type; seems older than the age given and enjoys good health. He

¹ Case shown at the October meeting of the N. Y. Society of Dermatology and Genito-Urinary Diseases.

does not remember anything about his grandparents. His mother died at 72 from "some bronchial trouble." The father, who was a hard drinker, died at 55 "from an operation." There is a history of a skin disease in the father, limited to the buttocks, which the man thinks was the same as his own. He has one brother and one sister, both living and in perfect health. The patient does not remember having any of the diseases of childhood, his only illness being an attack of pneumonia six years ago, from which he made a quick and uneventful recovery.

The disease began in his eighth year and seemed to have a peculiar predilection for those places where there was any pressure or friction. It appeared first on the buttocks, apparently from horse-back riding; it occurred in exacerbations, ten to fifteen lesions in different stages of development being present at the same time; a period of quiescence then intervened, only to be followed by a fresh outbreak of the malady. The lesion itself would begin as a subcutaneous nodule, movable under the skin, painless, and could be felt before it became visible. The size varied from a small pea to that of a hazel-nut; in from seven to ten days the nodule would reach its height, the usual size being that of a pea; it would then remain stationary for about two weeks, during which time it would take on a slight rose color, becoming very slightly yellowish in the center. At this stage the lesions were mildly tender on pressure. Rupture would then take place (at about the end of the third week), sometimes by one opening and sometimes by several, from which would exude a small amount of slightly sticky, sanguinolent substance, about the consistence of cream. This would continue for a few days when the discharge would dry into a crust, which would adhere for about a fortnight, finally dropping off, to leave a pigmented scar. The whole process from the beginning of the nodule to the resolution of the exudate and scar formation, would take from six to eight weeks. Rarely some of the tumors would remain dormant for months, finally undergoing resolution without suppuration. In those localities where the lesions were numerous and in close proximity, coalescence would frequently occur. The widespread distribution of the eruption is shown by the extensive scarring seen in the photographs, on the back, chest, neck, scalp, buttocks, and thighs. The hands and feet are free; the abdomen practically so. The arms exhibit a few scars on their anterior aspects, but only one lesion is visible posteriorly. In the illustration (front view) can be seen two lesions, one on each side of the chest, almost in the axillary fold, both in

the stage of retrogression, the right one on the verge of rupture and the left beginning to crust over. In the back view photograph, six or eight deeply pigmented spots are noticeable dotted here and there between the cicatrices; they represent lesions from which the crust has just fallen.

On the left side of the lumbar region, just above the iliac crest, may be observed two small tumors almost in apposition; they resembled sebaceous cysts, but disappeared after a period of several months without interference of any kind.

PATHOLOGY.

The tissue was embedded in paraffin cut serially, and stained according to the usual methods. As each section presented a somewhat different histological picture, they will be described separately.

SECTION 1. (From the buttock.) Exhibited a slight acanthosis, and obliteration of the papillæ in the center of the specimen. Emigrated leucocytes were present in the rete, and in a few sections were aggregated into minute abscesses. In the corium the vessels were dilated and surrounded by an infiltration of plasma cells exclusively, or sometimes with a few polynuclear leucocytes in addition. These same cellular elements with a few mast-cells, extended to other parts of the tissue, throughout which the fibroblasts were markedly proliferated. In passing to the center of the series a small abscess was found in the middle of the corium, in relation only with the contiguous collagenous tissue. None of the sections from this lesion contained a vestige of any of the cutaneous appendages.

SEC. II. (From the back.) With the exception of a comedo the epidermis presented no abnormality worth mentioning. The corium here also exhibited an intense proliferation of fibroblasts, and a perivascular infiltration, consisting of plasma cells and lymphocytes, greatest in the upper two-thirds of the cutis. A peculiar feature of this lesion was the cross section of a lanugo hair, situated midway between the epiderm and hypoderm; it was surrounded by round cell infiltration, in the midst of which occurred singular looking multinuclear, protoplasmic masses; tracing these through the series the hair disappeared, and two rosette-like figures occupied its former site. Centers of the latter took the acid stain, like keratin, and were surrounded by these bizarre bodies, some of which were entirely filled with nuclei, others containing them only in their central portions; they were slightly ovoid, with their external extremities free, the internal ones fusing with the central mass.

Toward the end of the series the symmetry of arrangement was lost, and they were simply disposed, side by side, in a group. About the coil apparatus, only a very slight periglandular exudation existed.

SEC. III. (From back of shoulder.) The epidermis was somewhat thickened, and keratosis of the follicles quite pronounced. The dilated vessels of the cutis were filled with blood and sheathed by an exudate of round cells. About the middle of the corium was an area composed of lymphocytes, plasma cells, many polynuclears and detached swollen epithelial cells; adjacent to this were numerous blood vessels. Following this focus through the series, it was seen to be in connection with a distended hair follicle; the seat of an intra and perifolliculitis. Where the lesion was most intense, only portions of the wall remained, and the polynuclear cells predominated. There was no evidence of pseudo-giant cell formation.

SEC. IV. (From side of chest.) This piece of tissue contained a central detached core, most of which was lost during the process of embedding; enough remained, however, to show that it was of a horny nature, like a huge comedo. The follicle was thinned, had several foldings in the lateral wall and from its lower extremity, curious digitate processes depended; some of them passing free into the corium. The inflammatory reaction was very slight, except at the upper end of the follicle, around which there was a dense area of cells, similar to those found in the other nodules. The urine examination proved to be negative with the exception that indican was present and also uric acid and calcium oxalate crystals.

The amount of literature accumulated by the French School, and also by other European and American observers, is so extensive that it is not intended to do more than make a few comments on this class of diseases known as the Cutaneous Paratuberculozes or Tuberculides, and then only when they have some bearing on the case in question.

Should one of the lesions, large or small, of this case be taken as an example and followed through its entire course, the disease is then in the main identical with several previous descriptions, namely: Acnitis (Barthélemy), Necrotic Granuloma (Johnston), Hydradenitis Suppurativa (Pollitzer).

The case is thought to be somewhat unique, in so much that the pathological findings, with the exception of the giant cells, are similar to those observed by the French in connection with folliclis and disseminate folliculitis, with apparently an entirely different clinical picture; and then again, the lesion, from a clinical standpoint,

closely corresponds (a difference in degree) to hydradenitis suppurativa, but the microscopical findings are much unlike those of the latter disease.

Fordyce, as early as 1891, in examining a subcutaneous papule from a case of "Acne Varioliformis of the Extremities," found the most intense cell infiltration about the coil glands, with the hair follicles practically unaffected, although in a more advanced stage of the disease he found infiltration about the latter.

Pollitzer, in 1892, in a full description of hydradenitis suppurativa, found a parenchymatous degeneration of the sweat gland epithelium, with the hair follicles in a normal state; he thinks the process starts primarily in the coil glands.

Barthélemy and Darier, in 1891, in a paper on Acnitis, have found the infiltration chiefly around the hair follicles. Johnston, in 1899, in an excellent article on the cutaneous paratuberculoses, under the head of Necrotic Granuloma, has said the cell infiltration begins about and follows the course of the vessels affecting the coil glands;—the sebaceous glands and hair follicles secondarily.

As can be seen, there is a great divergence of opinion in reference to the pathology, all of them agreeing, nevertheless, on the existence of giant cells; herein lies the chief differential point, from the other histological examinations consulted, viz.: after a careful search no giant cells could be found in the specimen. The examination in its other features differs from some and coincides with others. In one of the first sections inspected, some slight infiltration was seen about the coils; it was suspected at this time that the lesion might prove to be one of hydradenitis, but when the series was finished the infiltration was found to exist mainly around the vessels and hair follicles, concurring with Fordyce, Darier, etc. In all probability the cell infiltration is primarily perivascular, the appendages being affected by accident of position, as stated by Johnston.

Viewed clinically, the case is also atypical. Barring the dermatological affection, the man is absolutely healthy with no other tendency to scrofulosis; the favorite locations are not the groins, armpits, etc., as some text books describe; the palms and soles are free, in this manner differing from Barthélemy's cases; coalescence of lesions takes place, which does not occur, according to the description in necrotic granuloma. With the exception of the fact that coalescence is one of the objective symptoms, this latter term is probably best adapted to this patient's disease, as it is certainly a granuloma, and unquestionably necrotic.



Fig. 1.



Fig. 2.

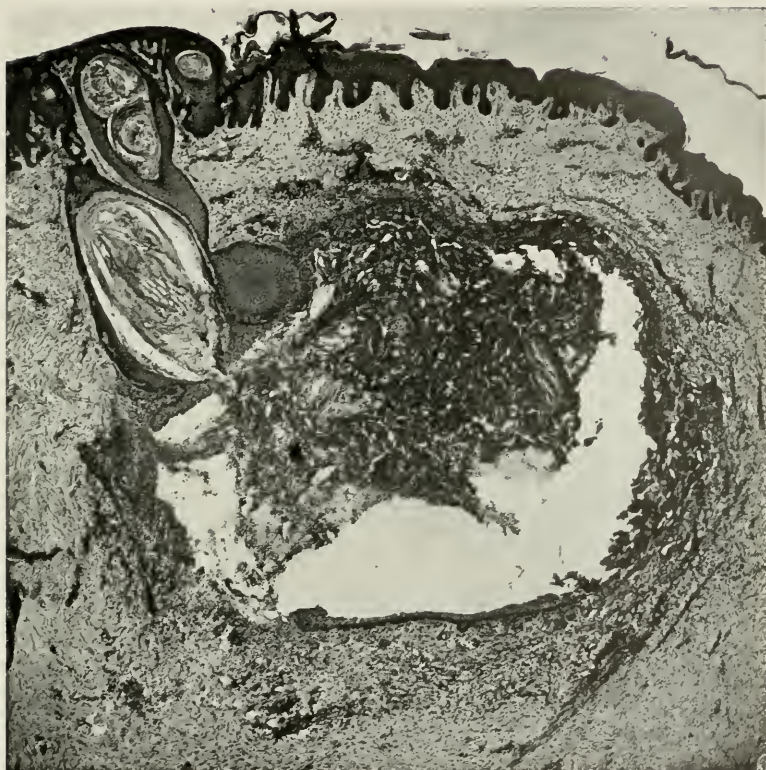


FIG. 3.

The name necrotic granuloma has been suggested by Johnston to take the place of ten or twelve different terms adopted by as many different dermatologists, some of which are:—Acnitis (Barthélemy), Hydradenitis Suppurativa (Pollitzer), Acne Varioliformis (Hebra); Necrotising Chilblain (Allen); Disseminate Folliculitis (Brocq), Acne Necrotica (Boeck), etc. He claims they are practically one and the same disease, which contention, to my mind, is in a great measure justifiable; but, be that as it may, to embrace them all under that title seems to be a little sweeping, as some of them differ greatly in their clinical aspects.

It would be very a happy condition if a vast number of the unnecessary names could be dispensed with and it would also be of value, when adopting a new one to have the clinical features taken into consideration as well as the etiology and histo-pathology.

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EDITORIAL.

SECOND ATTACK OF SYPHILIS.

THE question whether the immunity supposed to be conferred by one attack of syphilis is transitory or persistent throughout the life of the victim of the disease, may be considered as not yet decisively answered. It is true that science has given a partial assent to the possibility of occurrence of such second attacks, yet not without a reluctancy born of doubt. On the one hand investigation of the subject is confronted with the overwhelmingly large number of instances in which no second infection has been established. On the other are the records of relatively few exceptions to the rule. The question is not without importance in view of its bearing upon the possibilities of immunisation suggested by the recent experiments of Neisser and Hoffmann, and of the permanent curability of the disorder by modern methods.

Critical examination of the facts recorded as evidence in favor of second attacks of syphilis, discloses, as in many other crudely-drawn conclusions, numerous loopholes of error. These may be described as due to looseness of statement, failure of accuracy in observation, or misinterpretation of actual fact. Setting aside these faulty cases, there is left a small group of apparently unassailable records which until recently have seemed to defy the keenest criticism.

These supposedly well-established records commonly include: first, a history of infection followed by the evolution of classical symptoms under the observation of an expert; second, treatment, prolonged, properly adjusted, and efficient, under the control of the same observer; third, a sufficiently long period of exemption from all signs of the disease; fourth, a fresh exposure to the common sources of the malady; fifth, the development of what is assumed to be a second chancre ("primary sore"); and, lastly, the entire cycle having been traversed under the eye of the same competent observer, an equally classical evolution of what is generally designated as an "erythematous syphiloderm," ("syphilitic roseola"), a papular syphiloderm, mucous patches of the mouth, etc.,

together with other symptoms accepted until recently as symptoms developing only in brief periods after the date of original infection.

Evidence, however, is accumulating that much more than this is requisite to establish conclusive proof of reinfection in syphilis. For, first, it is now clear that some of the veterans of the disease, exposing themselves to fresh sources of infection after long periods of exemption from symptoms, are able to reinforce their temporary exhausted or quiescent toxins to the point of rejuvenescence. Thus what has been hastily assumed to be a "chancre" following such exposure, is often shown to be a gummatous lesion of the part to which the fresh virus has been applied, a lesion furthermore amenable, as are few genuine initial scleroses, to the treatment of gummata in general. The accompanying adenopathy, which indeed may be wholly wanting, is then of the order of those sympathetic glandular enlargements not rarely coincident with eczemas of the scalp and carbuncles of the nucha.

Still more conspicuous, however, is the error springing from a misinterpretation of the rash following the supposed second initial sclerosis, an exanthem often triumphantly cited as a resulting "roseola," or "erythematous syphiloderm." In this day every large clinical experience includes cases of erythematous, papular, and scaling rashes, occurring as well in late as in early syphilis; and the distinction between the two, if at all possible, is assuredly established only with difficulty. The exact limits of the long period during which these superficial lesions may develop are far from fixed, and are certainly widely separated. Ten, twelve, and even more years after the infective epoch, these surface-indications of the toxic fact have been registered and illustrated in colors.

In one of his recent publications Fournier has set forth the results of his elaborate study of this theme, a study conducted by the methods in which he is master. Oddly enough, it does not seem to have occurred to him that the title of his work "*Syphilis Seconde Tardive*" involves contradiction in terms. Few men, even for a brief space, succeed in freeing themselves from the shackles of tradition and the conventions of authority. There are no admissions of greater force than those made by the eminent French syphilographer, respecting the inadequacy of the Ricord time-schedule, propounded more than fifty years ago and still employed chiefly by the force of habit, to explain the order of sequence of the phenomena of syphilis. "It is possible," writes Fournier, "let us rather say it is frequent, to meet in the advanced term of syphilis,

in the course of what is called the tertiary period, accidents of secondary form and of secondary objectivity, accidents identical with those which are commonly encountered in the early periods of the malady." He characterizes them as "anachronous"; he dwells with the acumen of the close observer on their symptoms, their significance, their cause. Yet it was wholly unnecessary to resort to the frayed and out-worn time-schedule of the last century and to twist it to the point of disruption in the effort to explain these phenomena. That which is "late" is not often secondary. Better frankly accept the facts of pathology than to busy oneself in wrenching to the point of menacing its integrity, the dusty manikin of the Schools!

The chief importance, however, of the demonstration of these erythematous, papular, and scaling rashes as of concurrence in late syphilis, lies in their relation to the question of second attacks of the disease. They furnish a body of facts to be reckoned with hereafter, when further contributions are made to medical literature advocating the possibility of reinfection. In any event, if such reinfections actually occur, they are fewer in number than even the very exceptional cases in which the superficial exanthemata are of late occurrence in the veteran of the disease.

On *a priori* grounds one might suppose it highly probable, that as a matter of exception, second attacks of syphilis should occur; that the field on which the spirochaete or another organism was implanted, might in the lapse of time become practically virgin and therefore apt for a subsequent invasion by the same organism; that the very strong evidence in a large proportion of cases of the cure of the disease should suffice to open a portal for a fresh encroachment upon the same territory. Yet, as knowledge of the subject increases, an affirmative answer to the question under discussion seems more and more remote. The outlook for anything like an irrefragable demonstration of the possibility of reinfection is highly unpromising. The victim of the disease has been shown to be either syphilitic or immune to syphilis after half a century of infection. The one redeeming feature of the scourge is that it appears to confer upon its victims during their life-time, immunity against a second attack.

J. N. H.

SOCIETY TRANSACTIONS

THE NEW YORK DERMATOLOGICAL SOCIETY.

349th Regular Meeting, March 26, 1907.

Dr. A. D. MEWBORN, President, in the chair.

Lupus Erythematosus of the Nose. Presented by Dr. FORDYCE.

The patient is 36 years old, married, and the mother of three children. She gives no specific history. Her present trouble dates back two years, and began as a papule on the bridge of her nose, covered with closely adherent scales which were removed with difficulty. Since that time the lesion has spread in a serpiginous manner, the center remaining red and somewhat atrophic, while the margin is elevated and scaling, the scales being very firmly attached. At present the elevated border is in the shape of a horseshoe, on first inspection simulating a serpiginous syphilide.

Dr. JACKSON said that it appeared to him to be a case of syphilis. The raised crust, apparently made up of small crusts, standing side by side, and the dull red inflammatory zone beyond the crust, pointed to this diagnosis. There seemed to be no atrophy of the skin inside of the crust. Two years was a rather long duration for a syphilide, but not uncommon.

Dr. WHITEHOUSE had not observed any atrophy to speak of; in lupus erythematosus there is as a rule, some atrophy. The crusts were adherent, which would argue against its being a syphilide, but the configuration of the piled-up edges, although it has lasted for two years, would rather favor, in his mind, the diagnosis of syphilis.

Dr. SHERWELL considered it a syphilide. He was the more interested in the case as he had now under treatment a woman of like age and appearance with a similar lesion (on one side of the nose only), who about a year ago had been treated by him for a perforating tertiary syphilide of the right temporal region, which had caused necrosis of the bone nearly down to the dura mater. The case had entirely recovered from that, and under like treatment the present condition, seen only two weeks since, was decidedly better. The edges and general appearance of the case seemed to his mind identical with this.

Dr. TAYLOR said that in the absence of further history it was difficult to reach a diagnosis, but it did not strike him as being syphilitic.

Dr. JOHNSTON said he thought it was lupus erythematosus. He had seen several cases recently, in which, during the course of treatment, the disease passed over an area two or three inches wide, leaving no trace of its presence in the form of scars.

Dr. BRONSON inquired how long after seeing this patient it had persisted.

Dr. JOHNSTON replied that he had seen the patient the day before—four months after treatment.

Dr. Fox said that at first glance he was inclined to think that the patch was syphilis, but that further examination had led him to change his opinion. The central area was rather rough, not as smooth as the center of a syphilitic scar should be, and the scales of the border were very tightly adherent. He was inclined to think now that Dr. Fordyce's diagnosis of lupus erythematosus is correct.

Dr. MORROW was inclined to consider the case to be specific, judging from the nature and course of the development. It developed from a small lesion on the tip of the nose, and where you get a surface as extensive as this in lupus erythematosus, the initial erythema would be present over a larger surface. The diseased patch in this case has resulted from a progressive enlargement a single lesion. The general appearance and configuration of the condition would incline him to the view that it was of a specific nature.

Dr. BRONSON was of the opinion that the disease resembled syphilis more than lupus erythematosus. This was especially the case with regard to the serpiginous border at the left of the nose, which seemed to be made up of more or less distinct individual efflorescences that correspond rather to syphilitic tubercles than to the usually uniform border of a lupus erythematosus. Moreover, there was a dusky area of infiltration outside that border that looked like syphilis. The middle portion of the patch answered neither to syphilis nor to lupus erythematosus. There was not enough atrophy for the latter disease nor, on the other hand, were there the round, depressed scars such as usually follow a tubercular syphiloderma.

Dr. KLOTZ agreed with the diagnosis of lupus erythematosus.

Dr. FORDYCE said that he had seen the patient six months ago and again to-night. When first seen the lesion was a scaling papule about the size of a ten-cent piece or smaller, with firmly adherent scales. At that time it suggested no other lesion than lupus erythematosus. Now the center of the lesion has cleared, while the margins are sharply defined, so that it presents some resemblance to a syphilide. The marginal infiltration, however, is of a more vivid color than we see in syphilis, while the adherent scales speak in favor of lupus erythematosus.

Dr. MORROW suggested the use of specific treatment for a month, to see if this would throw any light upon the solution of the problem.

Gumma of the Tongue, Developing Forty-three Years after Specific Infection, Strongly Resembling an Epithelioma. Presented by Dr. MEWBORN.

The patient is 64 years of age, an upholsterer by trade, a native of Germany. He came to the Northwestern Dispensary on account of what he had been told was a cancer of the tongue, and because he wished to be treated without an operation, which he had been told was imperative.

Upon opening his mouth a marked swelling in the right border of the tongue was clearly observable. An oval, shiny, red, raw-looking surface, about half an inch in diameter, with a slightly elevated whitish border was found upon the right side of the tongue, just about opposite the right lower second and third molars. By palpation there was a clearly-marked, indurated, slightly tender infiltration in the tongue, underlying the patch. On the buccal mucous membrane, near the same lower molars, were whitish patches resembling mucous patches. He stated that the tongue lesion had only been present about two months, but that he had frequently had patches in his mouth like those in the buccal cavity. There were no

enlarged glands present. Patient admitted that when a soldier in the German army, at twenty-one years of age, he had had a chancre upon the penis, but denied all history of secondaries. Six years later he had married and his wife had given birth to six children, four of whom had died under three years of age. The last-born two children, girls, were still living, one in poor health, the other married, with one child.

Basing the diagnosis more upon the history of the infantile mortality than upon the appearance of the lesion, which had a marked epitheliomatous appearance, I gave the patient an injection of $3\frac{1}{4}$ grains of the salicylate of mercury. Patient complained of considerable pain in the site of injection, but three days later there was noticeable improvement in the appearance of patches, and lessened induration of the tongue. Another injection of $1\frac{3}{4}$ grains of salicylate of mercury was given, and at the end of two weeks the buccal lesions were well, and the tongue lesion one-half its former size. He was then put upon K. I. gtt. xxx. t.i.d., and is at present entirely well as far as lesions are concerned.

Dr. FORDYCE said of course there could be no question regarding the diagnosis after the very brilliant result which Dr. Mewborn had obtained. He was rather surprised at the large doses of mercury used, but the result certainly justified the procedure.

Dr. JOHNSTON inquired whether only one injection had been given.

Dr. MEWBORN replied that he had given the man two injections of salicylate of mercury, with a week's interval. Patient had also had iodides, but not until the lesion was well.

Dr. MORROW inquired whether there were any unusual local results following the injection of these massive doses.

Dr. MEWBORN replied that the patient had had considerable pain, but no inflammatory reaction, and no nodule; nothing more than would be expected after an ordinary injection.

Late Secondary Syphilis. Presented by Dr. MORROW.

This case is interesting only from the late appearance of the lesions of the secondary type. He contracted syphilis in 1902, was treated three or four years, and everything cleared up. Then he had several lesions of the (secondary) type, on his extremities, which also cleared up. For several years past he has had these small lesions, about the size and appearance of lenticular lesions, and the peculiarity is that they have continued to reappear, notwithstanding the fact that he had been treated almost continuously for the past ten years, by various physicians. Another feature is the exceeding slowness of the evolution of these lesions. I first saw him about two months ago, and marked a lesion about the size of a small pea, which during these two months had scarcely increased in size. He has a number of lesions on his body, perhaps a dozen altogether, which are of the same general character, and have been persistent for six months to a year and a half. The condition corresponds very closely to the type of lesion which Fournier has described as *Syphilis secondaire tardive*.

Dr. BRONSON said that it was evidently an annular syphilide of a late stage. He referred to a case he had recently seen at the City Hospital where, in a patient with tertiary syphilis, enormous rings of unbroken outline had formed in several places on the trunk and legs. They would measure six inches or more in diameter and had been of long duration. Usually the rings that form in late syphilis are interrupted at some point before they attain very great size, and if progress continues they assume a crescentic, horseshoe, or other curvilinear shape, with a tendency to grow in a serpiginous way.

Dr. FOX said that he had photographed several such cases, and one appeared in his atlas. It is much like a circinate psoriasis.

Dr. MORROW said that the lesions in this case conform very closely to the character of late secondary syphilis, so admirably delineated by Fournier, as does the history with one exception. Fournier states that in almost all of his cases there was an absence of sufficient treatment, and he attributed the persistence of the lesions to the fact that there had not been sufficient treatment in the earlier stage; but this patient had been treated continuously for three or four years, and after an interval of two or three years had been treated ever since. He had had a great number of physicians, and he had evidently received enough specific treatment.

Replying to Dr. Sherwell's suggestion—the patient had been treated locally very vigorously with oleate of mercury ointment—15 grains to the ounce, but it had made no impression.

Pigmented Syphilide. Presented by Dr. JACKSON.

The patient was born in Turkey and is naturally dark-skinned. The interest of the case was in the intense dark brown pigmentation of the sites of the lesions, both past and present, and especially in the large and small pigmented patches of the scalp. It was notable that the hair had fallen only from the sites of the patches. The disease was said to be of seven months' duration.

Dr. FORDYCE said he had seen pigmentations after syphilis eruptions similar to this one in patients with nephritis. Such patients who contract syphilis are very apt to have deeply pigmented lesions or to show extensive pigmentations after the disappearance of the eruption. In this case the tendency to pigmentation was probably racial.

Dr. BRONSON thought it somewhat misleading to speak of the case as a pigmented syphilide. It was simply the pigmentary sequel of syphilide lesions, the excessive pigmentation being due to peculiarities of the individual, or of the race.

Dr. FOX said that the peculiarity of the case was the large number of confluent papules which must have extended over the scalp. He had never seen so much pigmentation following a syphilide upon the scalp.

Dr. SHERWELL thought the deep pigmentation might be due to a racial peculiarity.

Dr. WHITEHOUSE agreed with Dr. Bronson that the term "Pigmented syphilide" was misleading, and for the same reason. The most peculiar part of the lesion on the scalp is the loss of hair over the exact region of the original eruption. There seems to be total destruction of the hair over the affected area; to him this was the most interesting point in connection with the scalp lesion. He had never seen it before.

Dr. WINFIELD reported a case which he had recently seen in a Spaniard. He had the same amount of pigmentation, except on the scalp. There were a great many spots on the body as dark or darker than this case.

Case for Diagnosis (Morphœa?) Presented by Dr. SHERWELL.

Dr. Sherwell showed a case with the following history; given briefly.

Mr. J. S., aged 34, U. S. Came to his office February 5, 1907, with what appeared to be a small indolent ulcer on left cheek on a level with and about half an inch from the angle of the mouth. He gave a history of having had a white spot of about half an inch in diameter in that location for about a year previous to consulting a doctor; did so, and was treated with unguents, etc., for a while, but about two or three weeks before consulting him he was treated by some strong escharotic application which left an ulcer without any tendency to heal. When seen on the 5th, showed a smooth, somewhat irregularly outlined ulcer, just as if punched or curetted out, which under mild protective unguents, etc., would build up a scab of peculiar consistency like a coagulum of lymph or yellowish matter, not purulent—but still refuse to build up from bottom, or get smaller by any healthy action. This kept up for a few weeks, when he barely touched it with acid nitrate of mercury which caused a little irritation and somewhat firmer scab. Dr. Sherwell has it now under treatment of a 2 per cent ungt. of hydrarg. chlor. mite. with a few drops of oleum rusci. It seems to be gradually improving. The white rim is narrowing, but nothing like a halo, or areola, around it, as is often seen in morphœa, which, however, Dr. Sherwell believes it to be. The patient's history is good, and he is evidently a robust man. His age, etc., spoke as against epithelioma; while the characteristic areola might have been present, still it usually is so light the patient might not have remarked it during the early part of the trouble. The exudate from the sore would seem to Dr. S. to simulate coagulated lymph.

Dr. WINFIELD said that he could not venture a diagnosis of the lesion from the appearance, but from the description given by Sherwell he thought it might be morphœa.

Dr. WHITEHOUSE said that it would be impossible to make a diagnosis. With the history and the treatment which it had undergone it would be impossible to tell the original character of the trouble.

Dr. FORDYCE did not think it now possible to tell what lesion was originally. It might have been a morphœa. He referred to a case of his own which was clinically a morphœa, but upon examination proved to be an epithelioma of peculiar type. The new growth consisted of small tubular processes throughout the derma, which in some places appeared to be connected with the epithelial sheath of the hair follicles (tricho-epithelioma).

Lesion on the Foot. Presented for Diagnosis by Dr. ROBINSON.

Man, aged 60 years. Syphilis 30 years ago; duration of present disease 4 years. Commenced as a small area, red, inflamed, with no history of free exudation or thick crusting. At no time has the infiltration been deep or quite sharply limited with continuous spreading. Has been under Dr. Robinson's observation for several months and has changed very slightly in character or extent. The lesion occupies half

of the first, second and third toes of the right foot, and extends $1\frac{1}{2}$ inches along the dorsal surface. The margin is fairly limited, not elevated, shows erosion like surface in some places more than in others, and has none of the elevated, sharply limited character of a syphilitic lesion. In parts of the patches, and mostly in central portion, islands of these scars are apparently present. The greater part of the general surface shows a reddish appearance with thin scabs and eroded-like spots; towards the toes a soft wart-like collection of epidermic formation of varying thickness is seen, and also in places upon the toes, but has not the firmness observed in a tuberculosis verrucosa cutis. Removal of this collection showed rather smooth surface. Diagnosis lies between tuberculosis, syphilis, eczema, erythematous lupus.

DRS. MORROW, DADE, FORDYCE, WINFIELD, WHITEHOUSE, and SHERWELL were of the opinion that the case was one of tuberculosis verrucosa cutis.

Dr. ROBINSON said that he was not able to make a diagnosis, although he had been watching the case for four months. His first diagnosis was eczema in a syphilitic subject, and he treated the case accordingly; and later when a diagnosis of syphilis was made by some members of the Section on Dermatology at the Academy, he had put the man on vigorous antisyphilitic treatment for three weeks, but failed to produce any improvement. He could not agree with the diagnosis of tuberculosis verrucosa cutis, but rather regarded the case as an eczema in a person who has had syphilis. Dr. Robinson then passed around a picture of a very similar case in which a positive diagnosis could not be made.

Dr. MEWBORN said that no one had mentioned the possibility of blastomycosis. He would suggest that an examination for blastomycetes be made.

Dr. ROBINSON said that he would excise a piece and have it examined, and report at a subsequent meeting.

Dr. JOHNSTON suggested the possibility of a mild streptococcic or staphylococcic infection, and if it proved to be either it ought to heal under comparatively simple measures, except that the location presented the difficulties it does in every process.

Tuberculosis Verrucosa Cutis, with Remote Secondary Tubercular Gummata of the Skin. Presented by Dr. WHITEHOUSE.

The patient is a boy aged 18, in whom the trouble began $1\frac{1}{2}$ years ago, following a cut with a knife on the back of the left hand; the patient is a paper cutter by trade. The wart-like lesions developed from the edge of the wound, and were first seen by the exhibitor nine months ago, when the diagnosis of tuberculosis verrucosa cutis was made, the patch being a typical one about $\frac{1}{2}$ by $\frac{3}{4}$ of an inch in area and situated on the edge of the old scar of the cut. This entirely disappeared under a 20 per cent. plaster of salicylic acid and creosote, the patient presenting himself now with a new focus about an inch from the old scar, and a second larger one on the extensor surface of the forearm, at least 12 inches from the site of the primary trouble. The lesion near the original site may be characterized as a crusted tubercle $\frac{1}{4}$ inch in diameter, situated in the upper layers of the derma, and is of about 7 months' duration. The lesion on the forearm developed three months ago and is several times

larger than the other, being about $\frac{1}{2}$ by $\frac{3}{4}$ inch in area. It is deeply seated in the cutis with an indurated base, and is capped with an adherent scab, beneath which the ulceration is very superficial. They are painless and only very slightly tender.

Dr. KLOTZ stated that in the original paper on the subject by Riehl and Paltauf miliary abscesses were described as essential features of the disease.

Dr. MEWBORN said that an interesting point about this case was that the patient was a paper cutter. He had shown before the society a similar case in a man who was a paper cutter. The man had cut his hand with the cutter used in his work, and a sore developed which spread around his hand and on the arm. It would be worth while investigating to see if the paper used had been contaminated by sputum of a tubercular fellow-worker.

Dr. SHERWELL said that he had seen similar conditions in brushmakers and leather manufacturers.

Recurrent radiodermatitis in a patient affected with a generalized lichenification of the skin. Presented by Dr. MEWBORN.

The patient you will recognize as having been shown before the society a number of times. He is 21 years old, and for more than 17 years he has suffered from repeated attacks of skin eruption accompanied always by intense itching. The eruption consists of a lichenoid thickening of the skin, which under the atrocious itching and scratching would become excoriated and exude serum with crust formation in places, but not typical of eczema or lichen planus, although at the present time the eruption is much more like a lichen planus. In places, especially on the chest and back, the skin is of a bright erythematous color which fades under a nail scratch to a pale anæmic streak, the color not returning for some fifteen minutes, showing marked vasculomotor erythism. The patient is subject to marked asthmatic attacks, is undersized and has a pachydermatous skin. Hands being peculiarly old and wrinkled. His blood examination made some time ago showed a marked eosinophilia. A histological examination of his skin submitted to Dr. Johnston showed no signs of eczema, but small-celled infiltration around vessels in derma.

The patient has been very beneficially treated by the X-ray under the hands of Dr. G. M. Mackee. The itching being suppressed and the skin becoming softer, less infiltrated, more normal in appearance. Certain parts of his body, however, have shown a marked susceptibility to the ray. Thus there was not even an erythema on abdomen or legs, but the hands developed burns of the second degree on both dorsal surfaces. The face and neck have been particularly susceptible. The right side of the face from the lower edge of jaw to the top of forehead was treated on April 11, 14, and 16, 1906. Erythema appeared two days later, and on April 23 the entire right side of the face was red, œdematous and scaly. The condition improved rapidly, and on May 14 the skin was normal. The left side of the face was treated to X-ray exposures on April 18, 23, 25, 1906. On April 31 a marked erythema of the left side of the face developed,

but entirely subsided by May 14. The right side of the neck from the jaw to the clavicle was treated on June 15 and 18. On July 2 an erythema developed which became a burn of the second degree. This burn almost entirely healed when on August 13, the entire right side of the face became erythematous, œdematous and scaly. This condition gradually spread to the forehead, left side of the face, and then the entire body became erythematous and scaly, including parts which had never been subjected to this treatment. This condition entirely subsided by September 15, except a few small ulcerations on the right side of the neck.

All the treatments were given with a medium tube, spark-gap of one or one and a half inches. The target was always ten inches from the skin. The generator was an eight-plate static machine running to full capacity. Tin foil protection for the non-exposed parts. Ten minutes' exposure at each séance.

On December 13 the patient came to me with the history of having been taken down a week previously with a severe pain in the chest (pleurisy), fever and a severe inflammatory condition of the face and neck. At that time his face, neck, ears were intensely swollen, red, and numerous vesicles and bullæ on face, neck and ears. Great pain and discomfort. He was treated with Burrow's solution of aluminum acetate, and three days later the blisters had broken, leaving raw depressed ulcerations on both sides of face and neck, surrounded by red, shiny, elevated skin. On this date the patient was seen by Dr. Piffard, who concurred in the diagnosis of recurrent radiodermatitis.

On December 26, after a number of severe asthmatic attacks, the patient, looking very pale and somewhat emaciated, was virtually well again. The face showed depressed scars where the ulcerations had been, and dilated vessels, with hyperpigmentation of both cheeks and side of neck.

Now, to recapitulate, here was a case in which the last exposures to the ray had been given on June 18. A mild burn developed on July 2. The face cleared up all except a small ulceration when the first recurrent radiodermatitis, without any further X-ray exposures, developed on August 13. This severe reaction was worse on the face, but the entire body reacted with a severe erythema. This was followed by a period of quiescence until December 6, when a violent second recurrence of radiodermatitis of face, neck and ears developed, with severe constitutional reaction, fever, pleurisy, etc.

Dr. Fordyce had seen the case two years before when he was first presented before the Society. The lichenification of the skin was even more marked at that time than now. It was suggested then that the case might be one of mycosis fungoides, but the microscopical examination made was not typical of such a condition; neither did it absolutely exclude that disease from consideration. He has seen several cases of general lichenification of the skin, the pathogenesis of which was difficult to explain.

Dr. JOHNSTON said that he could not imagine a case where the X-ray treatment would be more completely contra-indicated.

Dr. MEWBORN said that the X-ray treatment relieved the itching from which patient suffered.

Dr. MORROW said that in connection with the occurrence in this case of a dermatitis several months after the cessation of X-ray treatment, he had recently had a puzzling case of X-ray burn over the abdomen. The patient, a man, had had a prolonged exposure last October which produced no apparent irritation; later he had had a very short exposure, lasting, as the operator says, only from three-quarters of a minute to a minute—which resulted in a dermatitis followed by an exfoliation of the epidermis which took several weeks to heal. It was a question whether this burn was due to the more prolonged application of several months ago, which was followed by no apparent effect, or to the later short exposure. He also cited another case of a man who had been treated in the spring and early summer, followed by a dermatitis three months later without subsequent exposure.

Dr. WHITEHOUSE agreed with Dr. Fordyce that it was a general lichenification of the skin of unknown origin.

Dr. WINFIELD said that when the case had first been presented he thought it was mycosis fungoides, but of course that was now excluded. He advised the use of thyroid extract.

Dr. PIFFARD said that there was one feature of this burning business which was often overlooked, and that was the condition of the tubes at the last application. We all know that tubes are liable to become "locoed," as they say in the Southwest. They become crazy, and do not act rationally. Last spring a physician had brought to his office a patient with a severe burn on his ankle joint.

He (Dr. X.), had treated the man in the spring for a localized eczema, everything went well, and the man got well. In the early fall there was a return of the eczema, and Dr. X. put on one application of five minutes—a very moderate application—with the same tube used in the spring, and the man was burned very severely. Later the physician informed the speaker that he had burned five cases in one week. The fault was in the tube. A man should be very careful about his tube, and when he sees that it is locoed he should stop using it. Last spring the speaker had started in with a tube which went well for a while, but he soon saw that it was going wrong, and sent it back to the manufacturer to be re-exhausted, and it is a good tube to-day. Had he used that tube for only five minutes a serious burn might have resulted. A man who is accustomed to tubes should know when they are acting rightly.

Dr. MEWBORN in closing said that thyroid extract had been used without benefit. The patient had a marked eosinophilia when first presented, 19 per cent. eosinophilia. Although there were no marks now present, at times he would scratch until the surface was raw and exuding.

Thinking that possible the streptococcus might be the cause of this lichenification of the skin, as claimed by Brocq in some cases, a test of the patient's opsonic index to the streptococcus was kindly made for the speaker by Dr. Baldouan of the Health Department. The index was 1.39 or above normal. While at a loss to explain the patient's condition, he is evidently retarded in mental and physical development. X-ray photograph of the hand shows ununited epiphysis of radius and atrophic tips of the terminal phalanges.

Dr. H. H. WHITEHOUSE, *Secretary.*

THE CHICAGO DERMATOLOGICAL SOCIETY.

Regular Meeting, January 31, '07.

DR. PUSEY, President, in the Chair.

Case of Dermatitis Herpetiformis. Presented by Dr. ANTHONY.

The patient is a commercial traveler, 28 years old. He is of a nervous temperament. Both before and since the eruption appeared, he has suffered from coated tongue, constipation and eructations of gas, but in other respects his health has been excellent. About one and one-half years ago several cases of scabies were observed in his family, so that when he broke out with an eruption at the same time, it was diagnosed and treated as scabies for six months, without result, while the other cases were promptly relieved. It is probable that he never had scabies.

He has been under present charge for six months, and he has steadily improved during that time. The eruption comes out in crops; there is no itching preceding an outbreak, but he suffers from very severe itching when the crop first appears, so that he cannot sleep at night for about a week thereafter.

The mucous membrane of the mouth is not affected. There is no very great variation in the character of the crop; the eruption comes out suddenly at irregular intervals. It has involved, first and last, almost every part of the surface of the body—the scalp, face, trunk and extremities—with irregular disseminated lesions which disappear, frequently leaving pigmentations. The disease has always especially affected the back and gluteal region; in these locations, it has shown a greater tendency to grouping. The groups have been coin-sized, consisting of vesicles which are from pin-head to split-pea size, never larger. They have not ruptured spontaneously, but through scratching, a denuded surface has soon appeared. The urine has been normal. The eosinophiles were increased; Nikolsky's sign was not present. Urticarial wheals were present here and there when a crop first appeared, and at all times there is a certain degree of dermatographism.

Case of Atypical Psoriasis Vulgaris. Presented by Dr. L. E. SCHMIDT.

— Male, age 62 years. Patient is fairly well nourished and without any general complaint; denies ever having had a previous skin disease. Three weeks ago he noticed for the first time pin-head-sized spots on forearm; two days later similar spots appeared on the thorax, and subsequently on the lower extremities, face, neck and scalp.

At present, there is seen a generalized eruption consisting of pin-head-sized to lentil-sized elevations of dark red color, some slightly covered by scales, some coalescing, but practically all separated by areas of

healthy skin. On the lower limbs the individual lesions reach the size of 10-cent pieces; a few are as large as a dollar. All the lesions, and particularly those upon the lower limbs, present a peculiar appearance not common in psoriasis vulgaris; punctate hæmorrhagic spots are disseminated throughout the papules. These may be seen on those lesions which are free from scales as well as on those covered by scales. The removal of the latter does not show the characteristic bleeding of the papilla, but rather punctated hæmorrhagic points, which evidently appear spontaneously. A slight amount of itching accompanies the eruption. Diagnosis: atypical psoriasis vulgaris.

Case of Syphilitic Initial Lesion, Followed by Epithelioma. Presented by Dr. L. E. SCHMIDT.

J. D. Male, aged 52 years, married. Patient states that he had a sore on the penis thirty years ago; does not recall that it was followed by a rash and received no internal treatment at that time. This was his only venereal infection. Beginning in September, the patient noticed for the first time a small erosion, about the size of a split-pea, at angle of upper and lower gums, on left side. This gradually, in the course of four weeks, became hard and the size of a small lima bean. It was sensitive to touch and gave him pain at time of eating. Six weeks after its appearance the enlargement became noticeable at angle of jaw. At this time he first presented himself for treatment. Upon examining the mouth the entire left cheek was seen to be involved; there was marked infiltration, and posteriorly there appeared an ulcer the size of a 50-cent piece, with ragged edges, irregular surface, giving off profuse secretion and painful to the touch. The borders were indurated and elevated, and a distinct area of redness extended forward almost to angle of mouth; the ulcer was of such size as not to permit the closing of the mouth with ease. Exteriorly there was present a marked enlargement of cheek, one-half a hen's egg in size, over which the skin was shiny and reddened. The glands of the neck, particularly on this side, were much enlarged, hard and not painful. All the palpable glands of the body could readily be made out as freshly enlarged. Patient was poorly nourished, complained of irregular headaches, loss of sleep, poor appetite, and increasing weakness. At the same time over the face, neck, body and extremities, was found a papular squamous eruption; at least one-half dozen circinate papular squamous skin lesions were the size of the palm of the hand. The eruption had all the appearances of a recent syphilide. There was no evidence of an initial lesion on penis.

Patient was put on injections of mercury and the papulo-squamous eruptions promptly disappeared. The general adenopathy became less marked. However, the ulceration of mouth continued and four weeks later the ulcer appeared externally at angle of jaw.

The diagnosis was, "syphilitic initial lesion followed by epithelioma."

Case of Healed Herpes Zoster Ophthalmicus, with Consecutive Corneal Ulcer. Presented by Dr. F. A. PHILLIPS.

P. B., aet. 47. Was first seen January 25, 1907, at Illinois State Charitable Eye and Ear Infirmary, where he applied for treatment for trouble affecting right eye. Upon inspection, a central corneal ulcer was found, accompanied by a moderate hypopyon. The ulcer as seen now is not very deep, is slightly gray, with infiltrated base and shallow sloping edges. There is present extensive scarring of the entire right half of the forehead and of the scalp, extending well back into the occipital region, with a characteristic scar of herpes zoster upon the nose and the upper lid of the same side. The history is as follows: One year ago patient suffered severely from neuralgia in the right eye and right side of head, lasting for several months; on the second day after the onset of the neuralgia a blister appeared upon the forehead, which in 24 hours was ecchymotic. Patient was violently ill, and was confined to his bed for most of the time during five months. The blisters on the face and scalp healed in about 7 months, but the eye has never been free from redness and inflammation since the beginning of his sickness. The affection of the lid border has led to cicatricial entropion, with constant irritation of the cornea by the eyelashes. At present the cornea is anæsthetic, and it is likely that the falling unnoticed of foreign bodies upon the surface with the presence of the entropion has kept up the corneal lesion. That trophic changes account for the corneal trouble is very doubtful; the trophic factor in the etiology of such cases is disputed by many authorities.

Case of Systemic Blastomycosis, with Multiple Skin Lesions. Presented by Dr. R. R. CAMPBELL.

A full report of this case will be published later.

Case of Syphilitic Sclerosis of the Nipple. Presented by Dr. HYDE.

D. F., aet. 43. When first seen the patient had an indurated, dime-sized, freely moveable, superficial ulcerated lesion occupying the former site of the right nipple. A pigeon-egg-sized glandular swelling near the front of the axilla was present. A moderate general adenopathy was found, and there was a suggestion of a macular eruption. The duration of the condition had been between seven and eight weeks. During 2½ weeks' observation the lesion has softened somewhat and the eruption has become more pronounced.

Case of Syphilis with Ankylosis of the Mandible. Presented by Dr. WM. A. QUINN.

Mrs. B., aged 36 years. Two years ago patient acquired a primary lesion of the breast which was followed by an exanthem of the large papular type. At this time she was put upon mercurial inunctions by her family physician and developed subsequently a severe case of pyalism.

Various mouth-washes were used and potassium iodide was given internally, with little result; she was at last unable to separate the teeth more than $1/16$ of an inch. At this time she lost weight very rapidly, falling from 145 to 79 pounds. Patient was referred to the surgical department of the Central Dispensary for operation. A skiagraph was made; it was decided that an ankylosis of the bones was present, and the operation was limited to the removal of the lower teeth. This removal of the teeth greatly facilitated the taking of food; she gained in weight and the skin lesion disappeared. About this time she neglected treatment and when seen again she was covered with large pustulo-crustaceous lesions, rupoid in type. She was again given potassium iodide and tonics, with the result that the ulcers have cleared up, leaving scars; she has recovered her normal weight; and there is developing some motion in the ankylosed jaw. It is interesting to note that prior to her disease patient had undergone a surgical operation with the removal of the right kidney; the bearing of this upon the gravity of the case is worthy of consideration.

Case of Tubercular Ulceration of the Throat. Presented by Dr. ORMSBY.

The patient was 42 years of age; pale, anaemic, and had recently lost much weight. Had been ill for five years; the throat trouble being of several months' duration. The lesions were soft grayish granulations and superficial ulcers situated on the soft palate and pillars of the pharynx, extending forward for nearly an inch on the roof of the mouth, and downward to and involving the epiglottis. Deglutition was painful; tubercle bacilli were demonstrated in the sputum; one lung showed evidence of an old involvement, but no apparent activity at present.

Case of Carcinoma of Nose and Face Occurring on Lesions of Lupus Vulgaris. Presented by Dr. ORMSBY.

The patient, a woman aged 45, had suffered with lupus vulgaris for nineteen years, many lupus nodules still being present, also scars and other evidences of the process on both cheeks and one ear. The carcinoma probably began about two years ago. It now involves the entire region of the nose extending over each cheek for a short distance and upward to the corners of the eyes. Below, about one-half of the upper lip is invaded. The growth is typically carcinomatous with cartilagenous borders and ulcerating and discharging areas. The deformity was intense. The lupus in this case had produced ulceration in the nasopharynx, which had healed, leaving only a small opening connecting with the pharynx proper.

Case Showing Tumor Formations Following Paraffine Injections. Presented by Dr. O. S. ORMSBY.

The patient, a woman aged 35, exhibited new growths beneath each eye and between the eyes. Twenty-two months ago three injections of paraffin were made in the above areas by a "beauty specialist," to remove

some small wrinkles. For fourteen months no change occurred, then the present trouble began.

Status praesens. The new growths occupy the area of each lower eyelid and the entire area between the eyes extending on to the forehead. They are large enough to produce great deformity. The growths are firm, well defined, slightly lobulated, bluish-red and brownish in color, and painless. They have grown constantly for the past six months. Sections of tissue show a connective tissue new-growth, with giant-cell formation and numerous large oval and circular spaces. A further study of sections will be made.

Case of Blastomycosis of Seven Years' Duration. Presented by Dr. FRANK H. MONTGOMERY.

Mr. N. D., age 24. Seven years ago a lesion appeared on the great toe of the left foot, which was pronounced tubercular, and after two months the toe was amputated. Three weeks after the amputation pain occurred in the left hip. This lasted two or three months. About four months after the hip first became affected, a deep abscess occurred near the middle of the left thigh. This was opened and soon healed. This operation was done in the County Hospital, and while there he had some pain in the right knee. Later, a nodule formed under the skin, which afterward ruptured, leaving an abscess. This gradually spread and partially healed, leaving a small opening from which a slight discharge occurred for years. For the past year this has been steadily growing. His general condition on leaving the hospital was poor; his weight 86 pounds. Cough or expectoration were never noticed. After leaving the hospital he rapidly regained his weight and health. His condition on appearance at the clinic was as follows:

General health fair, rather pallid from indoor work. On the anterior and external surface of the knee an area about three by four inches was present, showing the characteristic border of blastomycosis. The organism was demonstrated by one of the students of the clinic. Later, this was repeated and the organism grown in pure culture. Under four months' treatment with potassium iodid and copper sulphate, internally, and with copper sulphate and radio-therapy locally, the lesions have almost entirely disappeared.

ERNEST L. McEWEN, M.D., *Reporter.*

NEW YORK ACADEMY OF MEDICINE.

SECTION ON DERMATOLOGY.

Stated Meeting held March 5, 1907.

Dr. A. R. ROBINSON in the Chair.

Lupus Erythematosus. Presented by Dr. HUBBARD.

The patient is a married woman 64 years old, and gives no history of previous illness or debility. Two years ago she noticed an itching of the scalp. She found a red spot, and soon the hair began to fall rapidly until there was a bald spot an inch and a half in diameter. Around this there were thick scales. The itching soon spread to the nape of the neck. She was treated by an advertising specialist without benefit, and then applied to Dr. Fox's class at the Vanderbilt Clinic, where the diagnosis was alopecia with superimposed eczema. Oil of cade was applied for the eczematous condition, and it responded quickly, all itching disappearing, and the redness from the neck also. The central spot has a distinct cicatricial formation, and encircling it is a violent red area, with more or less tendency at times to scaling, some of the scales having distinct plugs dipping into sebaceous gland ducts. The diagnosis was changed to lupus erythematosus of the scalp, on which an erythematosus eczema had been superimposed.

Lupus Erythematosus. Presented by Dr. BULKLEY.

The patient is a negress 35 years old, married 19 years. Her only child is 18 years old, and is healthy. Between 1901 and 1903 she had three miscarriages, the first two at about 1 month, the third at about 3 months. She gives no history of a sore, an eruption, headaches, sore throat or alopecia at that time or before. She has had an enlarged gland in the right side of the neck for at least two years, perhaps longer. On Dec. 24, 1904, two "water blisters," she says, appeared on the left leg, one on the outer and one on the inner side of the upper part of the calf, without itching or burning. These grew to about one-quarter of an inch in diameter in two weeks, and became painful. The patient opened both with a pin, letting out clear serum. Both of them ulcerated and spread, that on the outside extending deep into the tissue. April 1, 1905, she went to a hospital in Bayonne for treatment, and was in bed there for six weeks. The first two weeks of local treatment were without effect. Then the ulcers were dressed with blue ointment every three days, and blue ointment was rubbed into her arms every two or three days, and the ulcers began to heal. In two weeks she was salivated. The eruption on the scalp began in March, 1905. The hair fell, the skin was ashy and scaly, and itched badly. There were no lumps, no bleeding, no raw spots. The disease spread gradually over the greater part of the scalp. At present nearly all of the scalp is covered with pink scar tissue, with

irregular islands of normal skin. The borders are very irregular, slightly elevated, and black. In the hollow of the left ear is a small area of black pigmentation, apparently the first stage of the process.

Lupus Erythematosus Cured or Quiescent? Presented by Dr. LAPOWSKI.

The patient is a woman, 28 years old, who has been under observation six years. When first seen the lesions over nose and cheeks had coalesced and assumed the spread-butterfly-wing contour, which remained more or less prominent for about two years. Gradually the condition improved, and for the past eighteen months the face has been free from all active lesions. There remains a thin, soft, white cicatricial area on either side of the nose. The local treatment consisted in the application of Churchill's tincture of iodine, Biersdorf's creosote and salicylic acid plaster mull, and potassium permanganate solution up to 2%, alternated according to the response to treatment. Internally quinine .05g was given three times a day.

The process is now entirely quiescent, there being no active lesions.

Lupus Erythematosus. Presented by Dr. LAPOWSKI.

The patient is a male, aged 40 years, under observation 8 months. Face, neck, ears and nose show characteristic scars and active lesions, but the condition is improving under the above treatment.

Sclerodactylia. Presented by Dr. POLLITZER.

Mrs. G., 43 years old, native-born, of German parentage, one of five children who are all well; married 21 years, and mother of eight children of whom six are living and well, the youngest being seven years old. The affection began about ten years ago, as an ulcer on the tip of the right index finger. From that time on, the history is one of a succession of small, extremely painful and obstinate, shallow ulcers, affecting in turn each of the fingers of both hands at their distal extremities, sometimes also over one of the interphalangeal joints, while gradually the skin of the fingers became smooth, glistening, tense, and the end-phalanges atrophied and were absorbed, leaving the fingers with club-shaped terminations tipped with the distorted remnant of a nail. An X-ray examination shows the disappearance of the terminal phalanx of the fingers and thumbs. All the fingers are more or less rigidly fixed in a strongly flexed position, the last finger of the right hand is fixed in maximum flexion. Of late years the process seems to have become stationary, and there is only rarely an ulcer over one of the interphalangeal joints. About six years ago it was noticed that the middle of the patient's face showed signs of an atrophic change. The patient herself is very sure that the fingers were affected several years before there was any change in the face. There had been no antecedent swelling or erythema. The process in the face advanced very slowly to its present condition, when the sharp, pinched nose, thin lips, and drawn, shining, atrophic skin leave no doubt as to the diagnosis. A month ago an ulcer

developed on the sole of the right foot under the heel, round, shallow, saucer-shaped, extremely painful, and thus far resistant to treatment. While there are at present no other signs of a sclerodermatous process affecting the foot, it will be interesting to note the further course of the case with special reference to such changes. It will not be necessary to discuss the differential diagnosis between this case and syringo-myelia, Raynaud's disease and lepra nervorum, the only other conditions that might be considered.

Raynaud's Disease. Presented by Dr. LAPOWSKI.

The patient is a man 37 years of age. He had erysipelas when 4 years old. No history of any other illness until 1895. Denies venereal infection. In 1895 a small painful subcutaneous nodule appeared in the left triangle of Scarpa. It soon enlarged, spreading downward like a thickened cord under the skin, and extended the entire inner length of thigh; was red on the surface, painful and tender. (Probably inflammatory conditions of internal saphenous vein.) This lasted for some time. Later a similar condition arose on the left calf and also disappeared. In 1897 there was a swelling of the left testicle which soon subsided. In 1898 the right calf was affected in the same manner as the left had previously been, and the patient went to a hospital. In 1900 he suffered from severe general pruritus. In 1903 some painful red spots appeared on the inner side of the right calf. They did not disappear, and these, together with an enlargement near the left elbow, occasioned his going to a hospital in the following year. His left arm near the elbow bears the scar of an incision made to remove a portion of superficial vein for microscopic examination. No record of the examination has been obtained. He received potassium iodide, and 20 mercurial injections, with some apparent improvement. Two years ago he noticed that the toes of the left foot were usually cold. Later they became bluish and remained so. The next year, the toes of the right foot were similarly affected. The sensation of cold has now extended upward halfway between the ankle and knee of either leg, and the bluish color and tenderness are keeping pace with it. Five months ago the right middle finger became cold, painful, and swollen. A month later it was lanced. The following month the nail was removed and the finger freely opened. Since then it has remained painful and tender and swollen. A pseudo-nail has grown. The adjacent finger of the same hand is now becoming similarly affected. In this condition the patient came under our observation.

Syphilis of the Lips. Presented by Dr. BULKLEY.

Adolph B., 37 years old, unmarried, born in Austria. There is no history of alcoholism, tuberculosis, or cancer in his family. His father died of "stomach trouble." His mother is alive, over 70 years old, and ever since the patient can remember, she has had, from time to time, an

eruption appearing on the head, trunk, and legs. He has been told that it is syphilitic. Her oldest child, a son, died of diphtheria; her other children beside the patient, two sons and three daughters, are alive and healthy. One of the sons, now 33 years old, had an eruption at the angles of the mouth for two or three years, but has been free of it for the past two years. His children are healthy. There is no history of miscarriages. The patient can give no history of his infancy. Since he can remember he has never been sick in bed, and he can remember no sore or eruption of any kind until the present. He has never had a chronic cough. His nose was red as long ago as he can remember, but not deformed, nor was there any discharge from it. He came to this country when 14 years of age, and at that time had a nasal discharge, and crusts formed in the nose to such an extent as to plug it. A physician prescribed an ointment to be applied to the crusts, which loosened and removed them, but the process continued. When about 17 years of age, his septum nasi perforated, and then his voice became hoarse. There was still no skin lesion—only a swelling of the nose. When about 23 years of age, the ulceration of the nasal mucous membrane extended to the destruction of the alæ nasi, and the disease has spread ever since, now more, now less, but never disappearing entirely. He has been treated by Koch's lymph, tuberculin, inunctions, Zittmann's decoction, mercurial plaster, injections, the iodides, iodipin, and by various local applications, including a scaling paste. He says that local treatment is generally followed by more improvement than constitutional, but that, even at the best, the gain lasts hardly more than a week or two. In 1904 he had sores on his right arm and elbow, the scars of which remain. He went to Hot Springs that year and the year following, taking the baths and mercury: the lesions on the arm were cured, but the face was little changed. At present the disease involves the middle of the face, from the bridge of the nose to the point of the chin, and extending laterally a little beyond the corners of the mouth. The bridge of the nose is sunken, the tip and alæ are gone. The upper lip is greatly swollen, the lower lip slightly so. This swelling has been present about a year. The borders of the diseased area are very irregular, and there are outlying patches not connected with the larger mass. The whole surface is red. In parts, even where the border is red and raised, the base is smooth and cicatricial: in other places the base is uneven and covered with a greyish yellow, false membrane.

Lichen Planus of the Body and Mouth. Presented by Dr. LAPOWSKI.

The man's trunk and upper and lower extremities are covered with typical lichen papules. The mucous membranes of the roof of the mouth, hard and soft palate, inside of the cheeks, and the tongue, are thickly dotted with tiny spots, hardly raised above the surface. On the mucous membrane lining the cheeks, especially opposite the teeth, some of these spots are arranged in streaks.

REVIEW

of

DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

PHOTOTHERAPY AND RADIOTHERAPY.

By S. H. STOVER, M. D., Denver, Col.

RADIOTHERAPY. Freund, *Wien. Med. Press.* 1906, xlvii., p. 453, answers the question, "Are the dangers of radiotherapy such that the harm from it overbalances the good?" very strongly in the negative. In answer to the question, "What positive favorable results can we expect as a result of our experience?" cites the eminently successful use of radiotherapy in psoriasis, idiopathic sarcoma, rodent ulcer, Paget's disease, epithelioma, etc. He disputes the statement that the use of the Roentgen ray as an epilatory agent in cases of hypertrichosis in women is attended by ultimate damage of the skin structure, and mentions a number of cases of his own in which the result has been brilliant so far as a cure of the hypertrichosis is concerned, and in which the skin has sustained no damage. He states, however, that the Roentgen ray should be used only in those cases in which the degree of hypertrichosis is so great as to render impracticable the use of the continuous current by electrolysis.

EPITHELIOMA. Dr. J. Phillip Kanoky, *Am. Jour. Dermatol.* xi., p. 124, states that he has under observation twenty-nine patients who had been treated by Roentgen therapy for epithelioma over three years ago, and that in none of them has there been evidence of recurrence up to the present time.

EPITHELIOMA. Dr. E. Clinton, *Arch. d'Elect. Med.* July, 1906, presents a number of photographs of cases of epithelioma treated by the Roentgen ray. He uses a static machine, and measures his dosage by a combination of the Benoist and Holtzknecht methods. He reports a number of successes in treatment of epithelioma of the lower lip, but does not advise it as a substitute for excision in those cases presenting involvement of neighboring lymphatic glands.

EPITHELIOMA. Schiff of Vienna, *ibid.*, gives a number of conclusions derived from his work in radiotherapy, among which are the following: Roentgen therapy is undoubtedly beneficial in cutaneous epithelioma; cauterization may at times be needed in addition to Roent-

gen therapy; applications of the ray should be frequent and energetic; post-operative Roentgen therapy should always be made use of.

PROTECTION OF OPERATORS AND PATIENTS. P. Kraus, *Münch. Med. Woch.*, Sept. 1906, points out rather strongly, a long train of local and systemic ill effects appearing in those who are exposed to the Roentgen ray, either for diagnostic or therapeutic purposes. He mentions the observations of Albers-Schönberg in this line also. The effects which have been noted are: sterility, disturbed digestive function, insomnia, headache, degeneration of certain blood corpuscles, damage to the tissues of the kidneys, spleen, lymph glands, and changes in general metabolism. He recommends for operators the use of a lead-lined "protection chamber," or the wearing of a lead-rubber fabric cloak, gloves of the same material, and lead-glass spectacles; patients to be protected by screened tubes, or by screens of lead-rubber fabric.

• VENEREAL BUBOES. Herxheimer and Hubner report positive results in Roentgen therapy of venereal buboes, if treatment is made before supuration occurs. The testicles are protected by sheet lead; using a high tube, two exposures of half an hour's duration each are given in one week; this is said to be sufficient to cause the disappearance of a gland as large as a hen's egg.

BOOK REVIEWS.

La Blennorrhagie (Formes rares et peu connues.). Par le DR. LOUIS J. JULIEN, Paris, *Ballière et Fils*, 1906.

In its six chapters, (1) modern conceptions of blennorrhœa, (2) aberrant blennorrhœa, (3) blennorrhœa in children, (4) the blennorrhoids, (5) blennorrhœic ulcerations, and (6) fatal blennorrhœa, this little book of 84 pages contains a great deal of information in regard to some subjects which receive but scant notice if any at all in the hand- and textbooks. As blennorrhoids the author has described those discharges from the urethra which do not contain the gonococcus of Neisser, resemble gonorrhœa but are of completely different nature. This subject has been fully treated by the author, due consideration has been given to the septic venereal urethritis, that is to the urethritis caused by other microbes than the gonococcus; unfortunately the important question of the contagiousness of these forms has not been elucidated or decided. In the chapter on blennorrhœic ulcerations several conditions have been described which are of special interest to the dermatologists: blennorrhœic infection of wounds, blennorrhœic ulcers of the genitals principally of women, and pyoderma, folliculitis and ecthyma blennorrhœicum, *i. e.*, suppurating foci containing gonococci on the skin surrounding the seat of blennorrhœic affections. The swelling of the inguinal glands, assuming the form of the "strumous" bubo, which is occasionally observed in the wake of chronic blennorrhœa, has not been mentioned among the complications of this disease. The bibliography which accompanies the single chapters proves the search of the literature of other countries besides France.

H. G. K.

Eczema. A Consideration of the Course, Diagnosis, and Treatment. Embracing Many Points of Practical Importance, and containing 146 Prescriptions, Illustrating Dosage in Local Application. By SAMUEL HORTON BROWN, M. D., Assistant Dermatologist Philadelphia Hospital, Dermatologist Southern Dispensary, Assistant Dermatologist University Hospital Dispensary, etc., Philadelphia. (P. Blakiston & Co., 1906.)

A perusal of the 100 pages of this book does not produce the impression of originality, as it really differs but slightly from the chapters on Eczema in the general hand- and textbooks on skin diseases. The largest part of the book is taken up by the local treatment and the prescription formulas. Some of the author's statements will hardly meet with the general approval or consent, *e. g.*, to regard cases that react, slowly, if at all, to medication as chronic and those that react promptly as acute, to ascribe the formation of vesicles mostly to œdema and consequent expansion of the cell, and the general claim that every eczema tends to get well spontaneously. The parasitic origin of eczema is not considered probably, but a separate chapter is given to seborrhœic eczema. The prescriptions, as a rule, do not essentially differ from the usual ones, solutions of boric acid are frequently recommended in acute conditions. H. G. K.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. By GEORGE WHITFIELD OVERALL, A. B., M. D., Chicago. (Rowe Publishing Company, 1906.)

Unless surgery means nothing else but operating with cutting instruments, the title of this book is misleading; but if you include under surgery the application and introduction of instruments of any kind, whether armed with some electrical contrivance or without it, there is plenty to be found in this treatise. In fact the author concedes that certain conditions of the prostate require the use of the knife, mostly those for the treatment of which alone its use is recommended by others. For the other conditions, however, numerous instruments are described and recommended, the application of which would certainly be included among the harmful methods of treatment by Dr. Keyes, whom the author frequently quotes in support of his own views. Some of these instruments are neither new nor original as claimed, *e. g.*, the instrument illustrated on page 64a is identical with one described already by Gruenfeld in his treatise on Endoscopy published in 1881. In the illustrations 9 and XIIa the author has depicted as created by his instrument a vacuum which would be, indeed, very convenient for the observation of these parts if it existed in reality. Most of the instruments serve for the application of electricity, principally to produce electrolysis and cataphoresis.

In the seven chapters into which the book is divided, acute, subacute and chronic prostatitis, chronic congestive enlargement of the prostate, seminal vesicles, hypertrophy of the prostate and neuroses of the prostate are described and differentiated. The treatment in all these conditions is more or less identical: electrolysis, cataphoresis (effects of the various instruments), electro-vibration, and massage. The author apparently has unbounded faith in these procedures, the electrolytic, cataphoretic and dynamic (including germicide) properties of the different currents are indisputable. They must be used to effect synthetic or dialytic changes in both organic and inorganic substances, exert, by attraction and repulsion, oscillations of the molecules of bodies and transfuse liquids through animal tissue; these agents can be applied to the destruction of micro-organisms, dissipate morbid tissue and invigorate the atonic organs. It is hardly necessary to mention that the numerous cases reported uniformly bear out these statements.

The Bottini operation is absolutely and quite vigorously condemned, but the author has substituted for the sharp blade of the instrument a flat cauter-

izing piece, which is not intended to cut but to sear the indurated surface and thereby to convert the hard, resistant tissue into a soft granular surface that admits the action of cataphoresis and (after repeated applications) produces atrophy of the obstruction. It sounds strange that the author states that a little over a quarter of a century ago he found the trend of treatment of diseases of the prostate among other methods with Bottini's operation; however, although published by Bottini as early as 1874, his operation had not come into general use until after Freudenberg had introduced his improvements of the instrument and of the method, that it, within the last ten years.

Some of the teachings in the book are not commendable, for instance that under certain circumstances sexual continence would cause prostatic irritation, that the application of a 20 per cent. solution of cocaine is free of all danger, that by means of a flexible bougie-a-boule any rough and tender patch of the mucous membrane can readily be detected by the most inexperienced physician, and that such instruments may easily enter the orifices of the ejaculatory ducts or the utricle and become arrested there.

In an appendix electrophysics, electrolysis, and cataphoresis are treated in their chemic, physiological and therapeutic relations in so far as they pertain to the author's subject.

H. G. K.

Die Therapie der Haut- und Geschlechtskrankheiten, für praktische Aerzte. Von Dr. REINHOLD LEDERMANN, Specialarzt fuer Hautkrankheiten in Berlin.

Dritte durchgesehene und erweiterte Auflage des therapeutische Vademecum der Haut- und Geschlechtskrankheiten. Berlin (Verlag von Otto Coblentz) 1907.

This little book is divided in a general and a special part. The former briefly describes the various methods of treatment of the diseases of the skin arranged under the following groups: mechanical methods (massage, scarification, the Paquelin, hot air, galvano-cautery, electrolysis, cataphoresis); light treatment (Roentgen, Finsen, cold iron light, radium); high degrees of cold (Bier's hyperæmia); internal and external treatment. In the special part an alphabetical list of the drugs, including the most recent ones, employed in skin diseases, is presented, giving a short description, doses and indications. This is followed by a list, also alphabetically arranged, of the most important skin diseases and their treatment. The last portion of the book is devoted to the treatment of the sexual diseases; all the more important methods and appliances are briefly but clearly considered.

H. G. K.

A Text-Book of Genito-Urinary Diseases, Including Functional Sexual Disorders in Man. By DOCTOR LEOPOLD CASPER, Professor in the University of Berlin.

Translated and Edited with Additions by Charles W. Bonney, B. L., M. D., Assistant Demonstrator of Anatomy Jefferson Medical College, Surgeon to the Southern Dispensary, Philadelphia. With 213 Illustrations and 23 Full-page Plates, of which 7 are in Colors. Philadelphia (P. Blakiston's Son & Co.), 1906.

By supplementing a translation of *Casper's* well-known "*Lehrbuch der Urologie*" with longer and short remarks on various topics, mostly representing American usage or opinion, and by adding numerous plates, mostly illustrating operations or pathological specimens, *Bonney* has produced another textbook on Genito-Urinary Diseases of Man. The volume compares quite favorably with other textbooks on these subjects, of which there is really no scarcity. Undoubtedly the translator's additions have rendered the book of more practical service to the student as well as to the practitioner and, therefore, probably much more readily salable. However, considering the fact that medical and surgical science is becoming more and more cosmopolitan, and that national peculiarities of theory

and practice are rapidly being effaced, the question may well be raised, whether a book which seems worth a translation into another language ought not to be allowed to stand on its own merits and to represent the subject from the standpoint of the original author alone.

Throughout the book there is ample evidence of the author's endeavor to state the truth and of his sound common sense, the latter being particularly conspicuous in the treatment of the question of marriage after gonorrhœa (p. 95). All the subjects are treated intelligently and lucidly, those of tuberculosis of the bladder, hypertrophy of the prostate and on the functional sexual disorders deserve particularly favorable comment. The author candidly admits in the face of many theories that he does not know the cause of hypertrophy of the prostate.

Some statements found in the book will not be generally accepted. It is not absolutely true (p. 3) that the urgency of urinating is present both day and night in inflammatory conditions of the urinary organs, as, for example, acute posterior urethritis and cystitis. Indeed, during rest, particularly in the recumbent position of the patient, the urgent desire to urinate may subside or temporarily cease during the night, to reappear immediately as soon as the patient assumes the upright position or begins to move about. The limitations (p. 133) of gradual dilation of strictures by bougies to 21 to 23 Fr. will not appear satisfactory to the mind of most American genito-urinary specialists and it is surprising that the translator has not modified this rule. For the diagnosis of stricture, Otis' urethrometer is not approved of, and the existence of definite relations between the caliber of the penis and that of the urethra is denied (p. 4); and (p. 12) the translator emphatically states that the usual bougie-à-boule is of value only in the examination of the anterior urethra. Kelly's direct cystoscopy is not mentioned among the methods of examination of the bladder.

In the chapter on treatment of gonorrhœa, abortive treatment is pre-emptorily condemned as ineffective on the strength of the author's own attempts; no differentiation is made between primary and reinfection; direct local treatment of chronic gonorrhœa through the urethroscope is not mentioned. The statement that gonorrhœal cystitis is decidedly benign will probably be a surprise to some readers. On p. 228 the dose of morphine for subcutaneous injections is given as 0.01—0.05; as the dose in grains is given as gr. 1-6 to 1-21, the 0.05 suggests a printer's error, which may cause mischief. In regard to the skin on p. 103, it is said under the heading "Exanthemata in gonorrhœa": "Formerly when eruptions occurred during or after gonorrhœa they were attributed to the medicines which had been used, as for example, balsam of copaiba. It was found out, however, that occasionally an exanthema may develop in cases in which no drugs are administered. Therefore it may be assumed that there is a causative relation between gonorrhœa and these dermatoses."

Up to the present time no one has succeeded in finding gonorrhœa either in the blood of patients having the eruption or in the skin lesions themselves. Vidal and Besnier consider them to be *trophic myelopathic toxicodermata*. Buschke believes that they are the result of the gonorrhœal toxin. They appear in the form of erythema, herpes, urticaria, purpura, and hyperkeratoses, the palms of the hands and soles of the feet being their most common sites, although they affect other parts, as, for example, the thighs and genitalia. These remarks on the exanthemata may be interpreted as absolutely denying the occurrence of eruptions due to balsam of copaiba and other resinous and balsamic medicines. However, drug exanthemata following these remedies undoubtedly exist; that they are not observed so frequently at the present time, is easily explained by the fact that local treatment has largely restricted the use of internal medicines and that balsam of copaiba has been much supplanted by santal oil, which is not so liable to cause drug eruptions.

H. G. K.

The Practitioner's Medical Dictionary. By George M. GOULD, A. M., M. D. Octavo, xvi., 1043 pages. Flexible leather, \$5.00. Blakiston, Phila.

As a convenient dictionary for the practiser of medicine the above dictionary undoubtedly fills a useful purpose, but it attempts too much, consequently many definitions are scanty, while a great deal of space is taken up by illustrations and descriptions which might well be left to text books. An ophthalmologist may find much more help in looking for definitions concerning his specialty than the dermatologist.

Le Microorganisme de la Syphilis. By LEVY-BING. Octave. Doin, Paris, 1907.

This little volume is No. 18 of a series of hand-books upon definite micro-organisms or groups of such parasites, and owing to the enormous mass of writings upon the subject of the *treponema pallida*, such a volume is of the greatest interest. The book is clearly and concisely written with a more than simple culling of methods described by others, but a helpful, discriminating guide to anyone interested in the study of bacteriology or syphilology.

Atlas of Cutaneous Morbid Histology. Consisting of 53 colored figures on 24 plates and text. By Dr. Max JOSEPH and Dr. J. B. VAN DEVENTER. W. T. Keener & Co., Chicago, 1906.

The authors and publishers are to be congratulated upon this work. The histological plates, while somewhat schematic, are sufficiently typical and perhaps more instructive than photomicrographs of cutaneous lesions. Figure 24, on plate X, is certainly not a good representation of the microsporon minutissimum, which the text says "bears the closest resemblance to that of the microsporon furfur, although scarcely a third of the size of the latter." Page 27 of the text says regarding cocoons of ordinary cocci filling the excretory ducts of the sebaceous follicle, that they are "peculiar to lupus erythematosus in that they are not to be met with in all and every inflammatory disease of the skin." This does not deny that they are to be met with in some other inflammatory diseases, for if one may judge by the small plate of this coccus it is no other than Sabouraud's microbacillus of oily seborrhœa.

The plates are certainly highly artistic, and if the space in text permitted, a short description of the staining methods employed in each specimen would be of value to the beginner in histological work upon the skin.

Conference on the Moral Philosophy of Medicine. Prepared by an American Physician. Pp. 368. Price \$1.50. Rebman Company, New York. 1906.

This is a very clearly written little guide for the student of medicine as to his moral obligations to his profession. There is much else in the way of advice to speakers and writers of papers which is written in such a benign, helpful way that we feel sure the anonymous author is a man whom we would feel proud to call an American Physician.

Practical Dietetics with Reference to Diet in Disease. ALIDA FRANCES PATTEE, Late Instructor in Dietetics, Bellevue Training School for Nurses, etc. Fourth edition. A. F. Pattee, New York, 1906.

French physicians as a rule are skilled in dietetics. In fact, almost every cultivated Frenchman can tell you how to cook his favorite dish. Physicians everywhere are more than ever beginning to recognize the value of diet as an aid to their remedies, and such a book as this should be of great assistance to him and to the nurse. The French school of Dermatology lays great stress upon the importance of diet in the treatment of skin diseases, and we hope to see this little volume devote a chapter or two to this important subject in the next edition.

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THE OPSONINS AND CERTAIN BACTERIAL CUTANEOUS DISEASES.

HARRY EVERETT ALDERSON, M. D.

THE specific treatment of bacterial skin diseases (by the inoculation of heated bacterial suspensions) has been receiving considerable attention lately by general practitioners, surgeons, and a few dermatologists. Many cases that have been and *are still being treated* by this method have been placed on record. One reading over these case records, is impressed with the fact that while some few brilliant results have been effected in certain cases that have failed to respond to other methods, many of the other cases have improved only up to a certain point where they remained unchanged at the time of reporting, and others have recovered only after a prolonged course of the treatment. In observing clinically, cases of acne vulgaris, furunculosis, staphylococcia, lupus vulgaris, and tuberculosis cutis while under this opsonic treatment, one cannot but ask (as the WEEKS roll by), whether these same cases would not improve just as well by other modern and less complicated methods in the hands of a competent dermatologist. The results in some of these cases have been very striking and the efficacy of this specific treatment in certain instances cannot be denied, but it has not been demonstrated, by any means, that the older methods are going to be entirely supplanted.

Since Sir A. E. Wright, in 1903, published some of his early work on the subject of bacteriotropic substances in the blood (when he coined the term "opsonins" to designate these substances), an immense amount of investigation in this field has been carried on in different parts of the world. In this country and Canada, Hektoen, N. B. Potter, Hollister, Ross, and many others, have published the results of much valuable work on the subject, and in many institu-

tions special laboratories have been equipped for the purpose of making practical use of the method. To obtain results of any scientific value, of course, certain definite rules must be very carefully observed, and the technique requires much experience for its successful performance. So much has appeared in the literature of the subject, that it is presumed that everyone is more or less familiar with its principles. The illustrated article by Hollister (in *Surgery, Gynecology and Obstetrics* for Dec., 1906) gives a clear explanation of the technique.

The opsonins, although not bactericidal, belong to the anti-bacterial forces that combat infection. Through some special effect on the invading organism they render it especially susceptible to phagocytosis. The phagocytes act only on "opsonized" bacteria. The specificity of the opsonins for various organisms is still a debated question although Wright, Douglas, Bulloch, and others, have presented much affirmative evidence. The opsonic index is found to be *low* in localized infections, because in these cases, not enough of the infection gets into the general circulation to stimulate the increased production of opsonins. Inoculation with heated emulsions of the organisms (Wright's "bacterial vaccines") accomplishes this object in the following way: An inoculation causes the index to become lower at first ("negative phase"). Then after a number of hours (under proper conditions) the stimulated "machinery of immunization," by producing an increase in opsonins, causes the index to become higher ("positive phase"). A. E. Wright and others have observed in some cases, coincidently with the "positive phase," an "increased sense of well-being" and improvement in the local condition. In cases that are doing well, the index remains above normal (1.00 representing the normal according to Wright's method). The positive phase can be further increased by again inoculating the patient with a proper dose of the "vaccine." If too large a dose of the vaccine be given or if the inoculation is given when the index is dropping, its descent will be further hastened and the patient's condition will grow worse. This is particularly true in tubercle bacillus infections. There is a large group of infections (including those due to the tubercle bacillus and the various pus producing organisms) in which neither antitoxic nor bactericidal substances in the blood seem to be effective, but which are susceptible to the effects of the opsonins.

The methods of preparing bacterial suspensions for inoculation are fully described in Sir A. E. Wright's book, and in his articles

recorded in *The Proceedings of the Royal Society* (London). As far as possible, the specific strain of organisms causing the infection in each case, is isolated and the bacterial suspension is made from these cultures. In the case of tubercle bacillus infections, Koch's new tuberculin R is used in very small doses (commencing with 1-1000 to 1-600 mg.). It has been observed by Bulloch (*Lancet*, 1906, Vol. II.) that hypodermic injections of nucleic acid derived from yeast will increase the opsonins for the staphylococcus.

When the opsonins have been increased, their effectiveness is very greatly enhanced by using means to induce hyperæmia of the diseased areas. Thus it is that various forms of external irritation (including actinotherapy), by causing an increased flow of opsonins to the part, bring about conditions favorable for a cure. Obviously the most favorable cases for this method of treatment are those in which the lesions are situated *beneath the skin*, where they lie more directly in "the flow of the blood and lymph streams," and consequently are more freely flooded with opsonins. The most favorable *skin affections* for this treatment are those in which the condition is more or less chronic and the lesions fairly well localized, such as we usually find in lupus vulgaris, tuberculosis cutis, furunculosis, acne vulgaris, sycosis non-parasitica, and various pustular infections.

Everyone who has done any of this work has recorded series of indices found in various infections. The index is usually found to be low for the special invading organism in cases that are not doing well, or have been untreated. The following series of my own cases illustrate this fact as well as other points which will be commented upon later. These cases are taken from a series representing some preliminary work, the final results of which will be published when completed.

"STAPHYLOCOCCUS PYOGENES" CASES

	Index (Wright's method.)
Case 1. Sycosis non-parasitica	0.40
Case 2. Furuncle	0.72
Case 3. Acne vulgaris	0.71
Case 4. Acne vulgaris	0.58
Case 5. Axillary abscess (that was almost well).....	1.44
Case 6. Pustules on hands (almost well).....	1.25
Case 7. Acne vulgaris (before inoculation)...	0.80
" " (after inoc. with staphylococci emulsion)	1.93

Case 8.	Acne rosacea (with many pustules)...	0.57
Case 9.	Furunculosis (before treatment)....	0.29
	“ (after staphylococcic in- oculation)	1.44
Case 10.	Acne vulgaris (before treatment)....	0.36
	“ “ (after staphylococcic in- oculation)	1.32

In a series of *healthy* individuals, the staphylococco-opsonic index was above 1.00.

All these cases represented chronic conditions or acute exacerbations of long-standing tendencies. In Case 5 the abscesses had been evacuated and cauterized one week previously, and the condition was almost well when the index was taken. In Case 6 the lesions had been treated by ordinary dermatological methods and were almost well. In Case 7 the index ascended one week after the inoculation, but clinically the disease appeared unchanged. After about *three* weeks (two inoculations having been given in the meantime) the acne began to improve slowly. In Case 9 the furuncles were evacuated and couterized with carbolic acid, and the patient was inoculated with 499 million staphylococci (according to Wright's method). In three weeks the lesions had all disappeared. Since then the patient has not been seen, so it is not known whether or not there have been any recurrences of the furuncles. Case 10 was given no treatment but the inoculations and frequent massage to induce local hyperæmia. His condition greatly improved in one week, and then he was seen no more. In observing these few dermatological cases, and particularly in perusing the published records of many bacterial cutaneous affections treated by the opsonic method (in the hands of surgeons and general practitioners) one cannot refrain from asking: Why would not a competent dermatologist do just as well by his methods?

Opsonic treatment:—The treatment of the ordinary infectious processes of the skin due to the various pus-producing organisms, by injecting into the patient heated suspensions of the infecting strain of organisms, has been, in certain cases (but by no means in all) successful. In the case of acne vulgaris it often happens that although the staphylococcus injections may cause improvement, they do not entirely cure the disease. These injections sooner or later clear up the ordinary pus infection; but evidently something more is needed—probably inoculations with a preparation of the acne

bacillus (described by Gilchrist) and a course of hygienic and dietetic treatment would in time complete the cure. Reports of cases successfully treated in this way, no doubt will soon be recorded. Wright reported in *Lancet* (1904, Vol. 1.) a series of these cases (acne, furunculosis, sycosis non-parasitica, and staphylococcia), in all of which the staphylococco-opsonic index before treatment was below normal, but during a more or less prolonged series of "carefully graded" inoculations with the staphylococcus suspension, this index gradually became higher, and at the same time the lesions improved greatly. There were fifteen of these cases, and only seven were reported as having been absolutely cured, with seven others greatly improved, and one not doing well at the time of reporting. Seven of these cases had relapses. One of the "successful cases" ("Sycosis"—Case X) had been already treated by epilation (which left the face greatly improved at the time opsonic treatment was begun). One month after the commencement of the inoculations, he was almost well, but a *relapse occurred* six months later. Another "successful case" ("Furunculosis and run down condition—Case XV") recovered after having had inoculations, and *rest from his work in a congenial climate*. The time consumed in bringing about marked improvement in these cases varied from one week to two months—the furunculosis cases averaging two to three weeks—the acne cases from eighteen days to two months, and sycosis from one month to six weeks. Three of the cured cases were classed as "chronic acne of aggravated type" and here no auxiliary treatment was given.

Turton and Parkin (*Lancet*, 1906, Vol. II.) report seven cases treated by Wright's method. The reported results are as follows: *Case 32*: Acne. "Greatly improved" in twenty-two weeks! *Case 33*: Acne. *Recovery* in thirteen weeks! *Case 34*: "Pustules on face." Recovery and relapse (period not stated). *Case 31*: Pustules on face. "Almost well, in sixteen weeks. *Case 30*: "Sycosis." "Almost well" in four months! *Case 29*: Pustules on wrists and hands. "Recovery" in three months! *Case 28*: "Carbuncle." Complete recovery in five weeks! From five to fourteen inoculations were given in these cases. No further comment is necessary here.

Methods of inducing hyperæmia of the affected regions are of great value in these cases, and particularly so where the organism is the tubercle bacillus. It has been proven that the X-ray will not kill the organisms beneath the skin, so that, in the light of past experience, it would now seem that the beneficial effects that have

resulted from the use of this agent, have been due to the increased flow of blood to the part ("flooding the region with opsonins").

Tubercle bacillus infections:—Many observers have reported encouraging results from the use of Koch's new tuberculin (R) in very small doses, carefully regulated according to the patient's tuberculo-opsonic index. In the *Lancet* (1904, Vol. II., and 1905, Vol. II.), Wright and Douglas report a series of cases in which the inoculations, after variable periods, raised the tuberculo-opsonic index and caused improvement in the lesions. They found that the "positive phase" once induced would last a variable time (often as long as a month). Lawson and Stewart (*Lancet*, 1905, Vol. II.) found the t. b. opsonic index high six months after inoculation in some cases. Some very interesting lupus cases recorded in the *Lancet* (1905, Vol. II., and 1906, Vol. II.) by Sir A. E. Wright, Bulloch, Turton and Parkin, and Wynn, show improvement following a *prolonged* course of inoculations of Koch's TR carefully regulated by frequently taking the indices of the patients. While remarkable improvement is noted in most of these cases, relatively few absolute cures are reported. A large number of the cases had very extensive lesions and had been treated in various ways for years without any permanent success (Finsen light, Röntgen Rays, actual cautery caustics, curettage, etc.). In seven of Bulloch's cases, the Finsen light had been employed many times (varying in cases from 170 to 1466 treatments!). In Wright's series, it was observed that frequently some patches would be entirely well, while others (on the same patient) remained but little affected by the inoculations until local hyperæmia of these areas was induced (by applying hot sand bags), when improvement would usually begin. In one of Wynn's cases hyperæmia induced by the Röntgen Rays (during the positive phase) caused noticeable improvement. In another of his cases treated with tuberculin, the application of heat to the areas brought about improvement. It is clear that much more than simply inoculating the patient with tuberculin is called for. The lesions must be flooded with the opsonin and the patient's general condition must be improved by hygienic and dietetic measures. Over-enthusiastic workers in this field are very prone to overlook the aid given them in their successes by hygienic, medicinal, and other auxiliary treatment. Physicians and surgeons who have treated various dermatological cases by this method and have recorded (after *prolonged treatment*) "great improvement" (with only an occasional cure), seem to have forgotten that there are any other therapeutic methods

that have proven successful in less time by modern dermatologists.

In the cases just alluded to, Koch's TR was used in doses varying from 1-1000 mg. to 1-100 mg. The number of inoculations given, varied from three to twenty. The treatment extended from *four to twenty-eight weeks*, and relatively few absolute cures were reported. Most of the cases improved, however, after a time—just as they do under other therapeutic measures.

Tubercular skin affections apparently do not do as well under opsonic therapy as the deeper infections, such as we see in lymph gland, bone, and subcutaneous tissues, where many remarkable cures have been observed.

CONCLUSIONS.

1. It has not by any means been proven that opsonic therapy produces good results in acne vulgaris, furunculosis, sycosis non-parasitica, staphylococcia, lupus vulgaris, or tuberculosis cutis, any more expeditiously than the usual approved methods.

2. Most of the dermatological cases were "much improved." Relatively few were "entirely well." These results were accomplished only after prolonged opsonic treatment extending over weeks and months!

3. So far none of these cases have been reported by dermatologists, but have come from the records of surgeons and general practitioners, who might very easily misinterpret the clinical picture presented by certain skin diseases in their different phases. For instance, a patch of lupus vulgaris from which the crusts have been washed, and over which superficial healing has taken place, might readily deceive one not specially trained to observe cutaneous lesions.

4. Opsonic treatment is of undoubted assistance in certain chronic bacterial *skin diseases*. To produce the best results, much auxiliary treatment is necessary. External and internal medication, dietetic and hygienic measures and means of producing local hyperæmia should also be employed.

A FEW REMARKS ON ICHTHYOSIS, WITH REPORT OF A CASE OF UNUSUAL LOCATION.

By RUSSELL H. BOGGS, M. D.,

Dermatologist at Columbia Hospital, Pittsburg, Pa.

Read before the Pittsburg Academy of Medicine, April 23, 1907.

ICHTHYOSIS is a chronic disease of the skin of congenital origin or developing in early life, and it is characterized by impaired functions of the sebaceous and sweat glands, more or less generalized dryness or harshness, plate-like scaliness and variable degree of follicular papulation, sometimes warty or hornylike.

Ichthyosis is an affection which displays wide variation in its symptoms, and most authorities give the name ichthyosis simplex to the mildest form, and ichthyosis hystrix to the other extreme. Some authorities call the mildest cases of simplex, xeroderma. The condition to which xeroderma is usually given is one intermediate between keratosis pilaris and ichthyosis simplex. Ichthyosis simplex, as before stated, is the mildest form of the disease, and the one that is generally encountered. The skin is thickened, dry, wrinkled, and slightly scaly, the extensor surface of the limbs and trunk show pin-head nodules, covered in the center with scales, due to the excessive collections around the follicles, this condition is known as keratosis pilaris. The color of the scales depends upon the age and duration of the disease, in the mild form light and pearly, while in the well-marked cases a dirty yellowish or a dirty brown color. The affection is aggravated during the winter and decidedly improved during the summer.

Ichthyosis hystrix is an exaggeration or higher development of the mild form of the disease, and is characterized by scaliness and marked hypertrophy of the papillæ, which form verrucous, spiny patches. Usually the color is darker than seen in the simple variety and the normal lines and furrows stand out more distinctly. The distribution of this form is not so symmetrical as ichthyosis simplex and is frequently unilateral and localized. The disease does not cause any constitutional symptoms, but often the motility of the

joints is interfered with by the accumulation of the scales, and fissures may extend into the corium and render movement painful.

Pathology: Ichthyosis presents different morbid conditions in accordance with the severity of the disease. The main feature of the disease consists in the hypertrophy of the epidermis and the papillæ of the corium.

Ichthyosis is a congenital disease, although it usually does not appear until during the second year of life. It occurs among all races, and in all parts of the world. Kaposi says: "The cause appears to be a local anomaly of the nutrition of the skin, especially involving its epidermis and fatty elements."

Diagnosis: The history of the disease, its congenital or hereditary nature, the harsh, dry skin, with thickened epidermis, and the plate-like scaliness, with frequent follicular elevations, its greater development on the extensor surfaces, and the absence of inflammatory symptoms, are usually sufficient to differentiate ichthyosis from other cutaneous disease. I exclude acanthosis nigricans for the following reasons:

1. In this case the plate-like scaliness was well marked, and patient stated that it was necessary for him to take daily baths, using large quantities of soap in order to reduce the amount of scaliness.

2. The mucous membranes are not involved.

3. There is no carcinomatous growth or no cachexia.

4. There is no increased pigmentation along the lines of the veins.

5. There are no blood changes, except a slight eosinophilia which is present in many chronic skin diseases.

6. This case always improved markedly during the summer months and had at times slight eczematous complications.

7. The patient's general health is perfect.

8. There is no palmar or plantar keratosis as usually found in acanthosis.

9. There is no involvement of hair or nails.

10. The long duration of this case should have caused more characteristic symptoms of acanthosis.

This case was carefully examined by thoroughly competent clinicians and all internal organs found to be normal.

I could not obtain a specimen to have examined for increase in prickle cells which would have been a help in diagnosis, although not characteristic.

The prognosis regarding the general health is good, but the disease is incurable. The disease continues throughout life, and I have only found two cases on record where a permanent cure has been effected, one case a girl, age eight years, after an attack of measles the disease disappeared, and the other after an attack of variola.

Treatment: When persistent and properly directed in connection with suitable climatic changes, will do much to improve the condition of the skin. The younger the patient is when treatment is begun the more marked the improvement. Most authorities consider internal treatment useless. The external treatment should be directed to keeping the skin well anointed, in order to keep it as soft and pliable as possible, and by removing the epidermic scales. For this purpose, lanoline, vaseline, olive oil, cocoa butter, etc., are recommended. Alkali, steam, hot air, and sulphur baths, together with the use of strong salicylic ointment, will usually remove the horny accumulations. In some cases 'when the caking is marked it may be necessary to scrape off the masses with the curette and to touch the parts with mild caustic. A change from sedentary occupation to out-door life, as well as climatic changes, is always beneficial. Anything that increases the action of the sweat glands is indicated.

Report of Case: Mr. C——, age 17, was referred by Dr. O. C. Engle.

Family History: Father and mother Americans, aged 42 and 39, living and well. Aside from the fact that several collateral relations have had eczema, the family history is absolutely negative.

Personal History: The face is covered with rather widely discrete pigmented moles and warts, slightly bronzed as if deeply tanned. Neck shows a thickening and pigmentation of the epidermis, which is also thrown into small folds by this over-growth (Fig. 2). Arms and hands are rather free from the general thickening although somewhat pigmented, there is a small patch, however, on the flexor surface of each forearm at the bend of the elbow. The skin of both axillæ is greatly thickened and pigmented, showing many deep folds and fissures, at the bottom of which are seen narrow strips of more or less healthy skin, scattered over this area are many little papillomatous growths (Figs. 1 and 3). This tissue in the axillæ, as well as, in other regions where the sweat glands are numerous, has a rather smooth and spongy feeling to the touch. Over the breast and back, with the exception of the nipples, which resemble large-fissured and pigmented moles, the skin is less thickened and only moderately

PLATE XX.—To Illustrate Dr. Russell H. Bogg's Article.



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PLATE XXI.—To Illustrate Dr. Russell H. Bogg's Article.



Fig. 4.

bronzed, the folds are irregular in contour, giving an appearance of crackling, this area is harsh and dry. The abdominal surface is very greatly thickened and pigmented, thrown into transverse fissures or folds, the greatest amount of thickening and pigmentation being around the umbilicus (Fig. 4); scattered over this surface are a few deeply-pigmented moles as large as a split pea. The process covers the genitalia, not, however, involving the mucous surface of the glans. The lower extremities are free from the disease, except on the inner aspect of each thigh, where appears a moderately pigmented scaly patch which itches and shows marks of finger-nail scratches, and has the appearance of squamous eczema. The mouth and mucous surfaces are all healthy. The lymphatics are very slightly enlarged, but soft. The thoracic, abdominal, and pelvic viscera are normal. The blood presents no irregularities, other than a slight increase in the number of lymphocytes and eosinophiles. The urine shows no abnormalities.

The disease began at the age of twelve years, following an attack of diphtheria, which probably had nothing to do with it; it was first noticed as a darkening of the skin beneath the collar and later in the axillæ.

The most interesting point about this case is that, although the symptoms had been well marked for six years, and the patient had seen a number of physicians, no diagnosis had been given until three weeks ago when he came to Dr. Engle for treatment. Nearly every physician had called the disease some form of tinea.

EXTRA-GENITAL PRIMARY SYPHILIS; A REPORT OF SIX CASES OCCURRING IN COUNTRY PRACTICE.

FRANK H. WASHBURN, M. D., Jefferson, Mass.

THE following six cases occurred in a general village practice within a period of four years. At least four of them may be classed as syphilis—insontium, possibly a fifth.

Case I. Mr. C., aged 30 years, professional golf-player, guest at summer hotel, consulted me for a severe and persistent sore throat. Examination showed a large ovoid ulcer of the right tonsil. There was a peri-inflammatory area, tonsil swollen, cervical glands enlarged, markedly so on the right side. Appearances suggested chancre and the patient was told of my suspicions. From our conversation I was led to believe that the infection resulted from an unnatural practice. On a subsequent visit I was able to substantiate the diagnosis of syphilis, a macular syphilide, mucous patches, and a general adenopathy being present. This patient was for a time lost sight of, but about a year later he appeared, at which time he was still presenting symptoms and gave a history of having suffered severely during this period. He was under treatment at the Arkansas Hot Springs, for a time.

Case II. July 26, 1904, Clara C., single, age 19. For about eight weeks had noticed a sore on pectoral region above the right breast, which had increased in size until it occupied an area equal that of a silver half-dollar. Examination on the above date revealed mucous patches on the lower lip, angle of mouth, tongue, and external auditory meatus. Nymphæ and right labium majus were much swollen and covered with mucous patches. A fading macular syphilide could be seen upon the back and buttocks. The inguinal and cervical glands were enlarged. Temperature 100° F. This young woman denied venery, but claimed she had been bitten by a baby, while fondling it, upon the region where the ulcer later developed. The baby was said to be suffering from "some blood disease." Later experience with this patient, however, caused me to doubt the truth of her explanation of the source of contagion and about six months from the time she first consulted me she gave birth to a child, whom she brought to me when about a year old, presenting syphilitic dactylitis.

In this case the chancre was located upon the anterior aspect

of the chest over the pectoral muscles, but the manner of infection remains doubtful.

Case III. Miss K. S., aet. 23, single, house-maid. Two weeks before consulting me she had noticed a soreness of throat and two small whitish spots on right tonsil, which later coalesced. The ulcer increased in size and at the time I first saw her, Aug. 10, 1905, there was considerable odynophagia; right tonsil moderately swollen, red and surmounted by a pearly-whitish patch, overlapping the anterior faucial pillar, about one centimeter in diameter. There was something of a peri-inflammatory area. There was some enlargement of the anterior cervical lymph nodes and submaxillary gland on the right. On August 16th there was marked odynophagia; typical macular rash. Temperature 100° F. Subsequently the disease ran a severe course and some months later a swelling developed in the cervical region which, though at first thought to be syphilitic, proved to be a tubercular abscess.

This patient was an estimable young woman who was engaged to be married and as she could not at first remember that she had kissed any person other than her intended, a suspicion entered her mind which nearly caused a rupture of the engagement, however, later she obtained proof that an own cousin who had visited her was syphilitic and she had undoubtedly been inoculated during his visit. She has been fairly faithful in treatment, and still hopes to sometime consummate the deferred marriage.

Case IV. Mr. S., traveling salesman, aged 45 years, married, consulted a dentist one evening for toothache, while in the West on business. While drilling the tooth, according to the patient's statement, the dentist allowed his instrument to slip, wounding the gum. Three or four weeks later the patient noted a reopening of this wound and an indolent ulcer appeared. This was followed by a sore on the tongue and other symptoms. I first saw him at his home, April 2d, 1906, at which time he was having night sweats, loss of weight, cough, expectoration, weakness, slight fever, anorexia, etc. Examination of the chest showed moist rales (I regret that I did not make an accurate record of the physical signs in the chest). I considered this a case of phthisis at the time. Examination of the sputum did not reveal tubercle bacilli. While percussing the chest I noted a fading macular eruption which led to inquiry resulting in the elicitation of the above history. This gentleman is still under my care and has, as the result of the carelessness of the dentist, suffered from many and severe lesions. The symptoms as well as physical signs which I at first attributed to tuberculosis completely and rapidly cleared up under antisyphilitic treatment and careful hygienic regimen.

Case V. Mrs. S., while talking with the wife of the above patient (Case IV) I noted an ulcer on her lower lip presenting the typical appearance of a chancre, indurated, painless, exuding a thin fluid, and accompanied by moderate enlargement of the cervical lymph nodes. This lesion appeared about three weeks after husband's return from the Western trip. This lesion ran a typical course, yet has not been followed by secondaries, though watched for by the patient. While I realize that I may be open to criticism in reporting this as syphilis, I feel certain that this is one of the so-called abortive cases. Through the miraculous miscarriage of fate their little baby boy has not presented symptoms.

Case VI. J. D., male, single, aet. 58, proprietor of a summer boarding house, consulted me on June 25th, 1906, for a sore throat of two weeks' (?) duration. The left tonsil presented an ulcer one by one-and-a-half centimeters, surmounted by a grayish exudate, but slight adenopathy at this time. On June 28th a rash appeared, generalized and typical. Temperature 100° F. It was with considerable difficulty that I was able to impress this gentleman with the truth of the diagnosis, he having firmly in mind the belief that syphilis is rare and sexual intercourse necessary for contamination. His disease ran a mild course though the chancre was months in resolving completely, probably due to semi-neglect in following treatment.

There is nothing unusual in the above cases and they are reported merely for what they are worth. It would seem that many cases of extra-genital chancres would be seen by laryngologists, however, this does not always seem to obtain, judging from the statistics of some. It was with much surprise that I read the following remark of my friend, Dr. C. M. Cobb,¹ of Boston: "Primary disease of the nose and throat is exceedingly rare and I remember to have seen but two cases in an experience of eighteen years. One of these was a chancre of the lower lip from kissing and the other a chancre of the tongue, the method in which it was acquired not stated." Much has been said regarding the difficulties in diagnosis in tonsillar chancres. In this connection let me say that the appearance in all three of the tonsillar cases reported above were sufficiently characteristic to make the diagnosis of lues probable, and this is about all we can expect to do before the development of secondaries wherever the primary foci may appear. Odynophagia was marked in all my tonsil cases and *extremely* troublesome in Case I. In Case II, that of the exuberent chancre of the chest wall, I doubt if I should have made a diagnosis even to a probability, had I not found further corroborative evidence.

¹ *Annals of Otology, Rhinology, and Laryngology*, Feb., 1902.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

350th Regular Meeting, April 23, 1907.

DR. A. D. MEWBORN, President.

Case of Rhinoscleroma. Presented by DR. LUSTGARTEN.

This case was described by Dr. Ballin, in an article published in the *Medical Journal*, March 16, 1907, but Dr. Lustgarten said that he thought the Society would be interested in seeing the patient. Most of these cases are of Eastern origin.

The patient, B. C., 53 years of age, is a Russian by birth. Married. Family history negative, no one having had a similar affection. Children all healthy. The present illness dates back 16 years, when the patient began to complain of a sore throat and a catarrhal condition of the naso-pharynx; this grew worse until it finally resulted in ulcerations on the pillars of the tonsils and on the posterior wall of the pharynx, which were treated at some clinic in Kiew, Russia, and eventually healed, leaving large cicatrices. When the process had gone on for four years the uvula had entirely disappeared and firm connective bands had formed in its place. From that time the process began to spread upward into the posterior nares and into the nose itself. The patient then complained of a slight discharge from the nose and of difficulty in breathing, owing to obstruction. Several operations were then performed to remove the obstructing tissue and afford relief. The tissue removed was examined pathologically and found to be, according to the patient's own statements, rhinoscleroma. All operative measures and internal medication proved useless, as the process kept on extending, and the nares became more and more obstructed, so that nasal respiration was entirely impeded. The process in the pharynx and posterior nares seemed to have become exhausted, and the connective tissue bands which had formed remained stationary. Four years ago the tumefaction in her nose increased rather rapidly, so that it appeared externally in both nostrils and spread downward toward the tip of the nose, causing an enlargement of the entire organ to nearly double its size and giving the patient a most ungainly appearance.

She came under Dr. Ballin's treatment at the New York Ophthalmic and Aural Institute May 26, 1906, and the condition then was that shown by various photographs submitted. The woman appeared to be a well nourished individual, in perfect health, with the exception of the nasal affection. On examination the throat was found to be absolutely free and not involved in the process. The pharynx was a mass of firm cicatrices, showing that the process had run its course there and was no longer there a source of trouble.

The uvula was entirely gone and presented the appearance of a partial cleft palate. Bands of connective tissue were also seen in the posterior nares, with the postrhinoscopic mirror. The nose itself was enlarged to double its size. The nasal passages were entirely occluded, so that there was no respiration through the nose. The upper portion was broadened out and the lower part was one large mass, so that the outlines of the nostrils were completely obliterated and the tumefaction extended downward as a large projection almost to the upper lip. The entire organ looked like a globular mass, the skin was red and tense, and the lower part was covered with large ulcerations which gave forth a watery secretion. The entire nose felt stony hard to the touch and seemed fixed.

X-ray treatment was advised, and the patient was sent to Mt. Sinai Hospital on June 1, 1906. There a small piece was removed from the pharynx and sent to the pathologist for examination. He verified the diagnosis of rhinoscleroma. The X-ray treatment was carried out under the supervision of Dr. Stern. It was simple and was accompanied by no unpleasant sequelæ. The X-ray tube was entirely encapsulated with a layer of lead, and over this a layer of felt, with the exception of an orifice two inches in diameter through which the rays were allowed to act upon the diseased parts. The patient was placed in front of this tube with her nose three to four inches from the orifice, and the rays were allowed to play upon the parts for three to four minutes. The patient suffered no unpleasant effects from this treatment during this time with the exception of a slight dermatitis now and then, when treatment would be suspended, and again resumed when the redness passed away. The effect of this treatment has been remarkable. At the end of the fifth month the nose was reduced to almost its normal size, the redness disappeared, the tissues became softer and more pliable, and the outline of the nostrils, which had been obliterated, again returned. The tumefied masses which protuded at the nostrils retracted entirely, the ulcerations dried up, and the inferior part of the tip of the nose, which had reached down to almost the lower lip, retracted entirely. The upper part of the nose is still somewhat broadened out, and the passages of the nose are still occluded, so that nasal respiration is not yet restored, but the ungainly appearance of the patient is no longer evident, and she can go about without any embarrassment, or without attracting notice as prior to her treatment, and it is hoped that a continuance of the treatment will bring about a perfectly normal condition, and that the obstruction which still exists will be removed without surgical intervention. In the cases where the pieces have been removed from the nasal cavity to relieve the obstruction, the tissue seems to have the tendency to grow more rapidly, so this does not seem a wise procedure. It appears that as soon as cicatrices have formed the disease has run its course and the affection remains stationary, so that the continuance of the destructive process seems arrested.

Primary Rhinoscleroma of the Larynx. DR. LUSTGARTEN.

Dr. Lustgarten also told of an interesting case of primary rhinoscleroma of the larynx now under treatment at Mt. Sinai Hospital. The patient is a girl of 18 years and the condition is quite rare at that age. When first examined she presented a large mass in the larynx, and a small section from this demonstrated the case to be rhinoscleroma. She was put under X-ray treatment, but had had only one exposure when the dyspnoea became so great that the larynx and trachea were opened up, and an incision $2\frac{1}{2}$ to 3 inches long was made in the larynx and trachea. The first two exposures were given under an anæsthetic. The opened larynx and trachea were simply retracted and the rays permitted to play into the larynx. Later the exposures were given without the anæsthetic, as she could easily endure the small tube being placed against the tumor. Up to date the girl has had only six or seven exposures, but the tumor has almost disappeared, and it is expected that in a few days it will be possible to draw the edges of the larynx and trachea together and let them heal, and do away with the tracheotomy tube.

DR. LUSTGARTEN said that he had also another case of rhinoscleroma in a little child, which is extremely rare. He only saw this patient once or twice, however, and she then disappeared, although he was trying to trace her.

All of these cases come from one district of Russia.

DR. STERN showed a picture of a tube which he had devised for the treatment of one of these cases.

DR. TAYLOR said that he had read Dr. Ballin's article very carefully, and had been much interested in the case.

In reply to a query, DR. STERN said that the improvement in the case was almost as marked three months after the beginning of the treatment as at present. The improvement seems to be slower as the deeper tissues are reached.

DR. FORDYCE said that the therapeutic result was excellent, and he was glad to learn that something had been found to reach such cases.

DR. LUSTGARTEN, in closing the discussion said that he had little to add except that it was a peculiar fact that all of these cases had come from a certain region in Southern Europe. They also seem to occur in South America. Several years ago a lady from the best society in Argentina, S. A., had come to Vienna while he was there, in order to be cured of rhinoscleroma. He did not know of any indigenous cases reported in the United States.

Lupus Erythematosus. Presented by DR. LUSTGARTEN.

The patient, a young woman of 35 years, was presented on account of the extensiveness of the lesions and for the interest of the therapeutic results. She has been under treatment for 18 months. The atrophic tissue shows that a great part of the face was affected. There were also extensive lesions in the mouth. The Hollander treatment was first tried, but that became really only a simple quinine treatment, as she refused to apply the iodine on the face. She began with 10 grains of quinine, and now takes almost constantly 30 grains of quinine a

day, 6 doses of 5 grains each. As could be seen, the face was practically cured. The question naturally arises whether in the Hollander treatment the efficacy is not the result of the quinine regardless of the iodine. The rationale of the Hollander treatment was to secure the fluorescent effect of the quinine to produce a kind of activity of the tincture of iodine. If any conclusions can be drawn from this case, however, it is that it is the quinine and not the iodine which produces the effect. The patient says that if she reduces the dosage to 15 grains a day she gets a little reaction. She stands these doses of 25 to 30 grains of quinine daily remarkably well—a little woman like that. She has been under treatment for a year and a half, and is so pleased with the result of the quinine that she comes every week for the pills and insists upon the large doses.

Dr. Lustgarten said that so far as the rationale of the treatment was concerned, the quinine seemed to be used as a kind of sensitizer, as in the light treatment. Morton had recommended some procedure of the kind. This, however, was a pure quinine effect, as no actinic rays were used. The mucous membrane was improved, and that was not exposed very much. The case was presented simply to show the result of large doses of quinine in extensive cases of lupus erythematosus. Local treatment with high frequency cauterization gives very good results, but this is hardly practicable in such extensive cases.

Dr. Fox said that he had been much impressed with the results obtained by the administration of quinine in large doses. Some years ago he had had a patient with deep patches of erythematous lupus, and after trying various plans of treatment quinine was finally resorted to. He was struck by the fact that almost every time the quinine was given there was an intense congestion of the patches, apparently as the result of the quinine administered. The treatment, however, was not continued long enough to obtain any marked therapeutic result, but he remembered that it did have a marked effect on the patches.

Dr. JACKSON said that he had treated one case of lupus erythematosus with quinine internally and iodine externally. Before any marked result was obtained the patient contracted pneumonia, and when she recovered from pneumonia, the lupus erythematosus was gone.

Dr. MEWBORN referred to the method of treatment recently advocated by Sabouraud, consisting in closely approximated cauterizations with the galvanocautery around the margin of the lesions. This method he believed had been advocated by Piffard some twenty years ago.

Syphilitic Affection of the Upper Lip. Presented by DR. LUSTGARTEN.

The patient, a man of 38, contracted in February, 1906, a lesion of the upper lip. The case was diagnosed as malignant disease and an extensive excision of the upper lip was made. Soon after, secondary symptoms appeared, which left no doubt of the nature of the lesion. From the beginning it took a most virulent course—a galloping course of ulcerating gummatous lesions on the skin. During Dr. Lustgarten's absence in the summer, the patient went to Mt. Sinai Hospital with an

ulcerating relapse, and a little more of the lip was removed. In the fall there was another relapse on the remaining part of the upper lip, and a number of ulcerating lesions; there was pronounced glandular swelling, and his weight had fallen from 163 to 97 pounds. He had then a fair amount of mercurial treatment and had become anæmic under it. He was put in the hospital, and the mercury treatment was stopped, and an energetic sweat cure was instituted, with doses of iodide of potash. Under this treatment the patient gained rapidly in weight rising from 97 to 145 pounds.

The treatment consisted of very hot salt baths—10 pounds of salt to 100 litres water; then a quick dry pack and rubber blankets, and an injection of $\frac{1}{6}$ to a $\frac{1}{4}$ grain of pilocarpin. He was allowed to perspire profusely and then given a dry rub with alcohol. He had a third relapse this spring on the upper lip, with much loss of weight, and was again put in the hospital under the sweat cure, followed by the same result—a prompt healing of the lesions.

Dr. Lustgarten said that he did not think the patient was yet out of the woods, but would have to be watched carefully and would probably require a good deal more treatment. He hoped if there were no further complications that the surgeons would later be able to do a plastic operation and relieve the present deformity.

He had presented the case to illustrate the value of this very energetic eliminative treatment—the sweat cure. He employed it frequently and had derived excellent results. The amount of sweating that could be produced in an hour in some cases, was remarkable. In one record case there was a loss of $6\frac{1}{4}$ pounds in an hour. That patient was an unusually strong and healthy man, but three to four pounds loss could easily be secured. Of course before giving this treatment one must make sure of the condition of the heart, kidneys, etc.

In response to an inquiry as to the rationale of this treatment, Dr. Lustgarten said that he was not sure, and that it was very hard to say just what it was. Sweat cures are an old remedy and date back to almost prehistoric times. We know that by this process toxins are eliminated, and perhaps also germs. A leucocytosis is produced by the pilocarpine sweating. The enormous flushing of the system is counterbalanced by the increased tissue metabolism. The patients do not lose in weight, but on the contrary gain in weight. He had known some very tedious cases—of the kind which constantly relapse and wear out the patience of both patient and physician—improve remarkably under an energetic sweat cure.

In giving this treatment it is important to have a reliable nurse,—the pulse must be controlled, etc. Dr. Lustgarten said that his experience with this treatment dated back for many years. One patient had come to him after having been at the Hot Springs in Arkansas for seven months without relief, and was relieved by this sweat cure. He

did not think it was possible to secure a good sweat cure at any of these watering places, for they have not the time to give it. The treatment requires about two hours a day, and few of these places have the proper attendants and facilities or time to administer the treatment properly. If not properly given it might lead to very serious results.

DR. TAYLOR said that it was indeed a very sad case, but that it was paralleled by one he recalled, of a middle-aged man who had a syphiloma of the penis which assumed large proportions and involved the glands. A diagnosis of carcinoma was made and the organ was amputated. On two occasions he had been consulted by men who brought to him cases with hard chancres of the penis, for which they contemplated removing the organ. Not infrequently these hard chancres are mistaken for epithelioma. He remembered a very sad case of a man whose left index finger had been removed by a surgeon because it was the seat of an enormous fungoid hard chancre. The finger looked like a miniature Indian club. Another patient had had a hard chancre of the left lachrymal caruncle, which was cut out, and the man was horribly mutilated. Strange to say he himself had published many years ago in the *Medical Journal of American Science* the case of a man who had specific infiltrations of the lachrymal caruncles, so that they protruded like two big strawberries, one on each side, and the man presented a very comical, grim appearance. This man had a child with hereditary syphilis, and his wife had syphilis. He went to a physician in an infirmary and was operated upon, and the resulting disfigurement was something awful. Such cases should teach men to be very careful in making their diagnoses, and to hesitate before recommending excision.

The treatment of DR. LUSTGARTEN's case was very interesting. One of his own rules in the management of syphilis is to follow the case according to the patient's fat producing properties, and to treat him on those lines, and generally to produce diaphoresis in some way or another. This was a very desirable plan as an adjuvant in the treatment of syphilis. In general practice one does not meet with many cases of malignant syphilis, but he had seen many, and had obtained some very satisfactory results. He agreed with Dr. Lustgarten that in treating such cases we should resort to something more than the giving of mercury or iodides. The general well-being of the patient should be looked after. One point which he made was, when necessary to reduce the weight and not let the patients get too corpulent.

DR. SHERWELL said that he had on several occasions the happiness of rescuing men from too hasty proposed surgical procedure. Not long since he had seen two cases where a very serious operation upon the nose was proposed, which in his opinion was not warranted. One case had been diagnosed by apparently competent authority as an epithelioma. The patient was in the care of a very good practitioner, and acting under his advice a very decided course of antisypilitic treatment was given, which proved to be entirely successful. The other case is now also well. This latter was an old fellow, a motor car man, but quite active. He had an ulcer of the leg which, to a certain extent, resembled an epitheliomatous growth, and a respectable surgeon had made arrangements to amputate the leg at the lower third of thigh. Dr. Sherwell said that he advised against doing this until specific treatment had been carried on for a sufficient length of time. The result is that the man has his leg and is earning his living to-day. He recalled a number of such cases where the patient had been satisfactorily treated without resort to a radical operation which seemed imminent. He need, he thought, hardly refer to the numbers of cases where there had been involvement of the testes, etc.

DR. FORDYCE referred to a case of malignant syphilis where the infection

took place less than a year ago. It was rapidly followed by ulcerative lesions of the skin and destruction of the cartilaginous septum of the nose. The patient did not respond readily to mercury; inunctions produced intense irritation of the skin, followed by impetiginous lesions which spread over the entire body, showing lowered resisting power. The patient lost between 30 and 40 lbs. in weight and was in an extremely cachectic condition. Under the iodides the ulcerative lesions rapidly healed. The case was cited to illustrate the fact that the iodides have their indications in some cases of early syphilis.

DR. FOX said that he had seen cases where excision had been performed on chronic syphilitic gumma of the face, but he did not understand why in any case of initial lesion the surgeon could not wait long enough to see if it could not first be healed by treatment. In regard to sweating, he remembered that when Dr. Bumstead was in Vienna the fact that impressed him most was the results obtained there in the Hospital by the use of Zittmann's decoction, against which he had always railed when at home.

DR. MEWBORN said that some time ago he had presented before the Society a man who had had an initial lesion of the lower lip which had been removed as a cancer by a surgeon, who had also removed the satellite submaxillary glands. Later when the secondary lesion broke out, the surgeon had concluded that he had made a false diagnosis. In another case, at the New York Hospital, the glands in the neck had been removed under the wrong diagnosis of tubercular glands, the initial lesion being on the left tonsil. The patient was a young girl of 16, and later developed an unmistakable secondary rash.

DR. TAYLOR recalled a case of a syphilitic primary lesion of the tongue. The patient was slated for operation, but under vigorous internal and local treatment got well. In another case where there was a fungating mass on the ala nasi, which looked like a sarcoma, he had been consulted and advised luetic treatment before resorting to an operation. In both instances the proper treatment systematically followed resulted in cures.

DR. MEWBORN said that at the French Dermatological Society, Hallopeau had recently presented a patient who had contracted syphilis in the tropics and had had a very virulent form of the disease. Hallopeau suggested that being a tropical syphilis it might perhaps be of a more virulent type; but Janselme maintained that it was a mistake to suppose that the syphilitic virus was more virulent there than in other climates, but that there were other conditions which favored its malignancy. As to treatment, it has been shown that some cases will not respond to mercury and others will not respond to iodides. There seems to be some idiosyncrasy in individual cases.

Extensive Hairy Naevus, accompanied with malformation. Presented by Dr. Fox.

Dr. Fox said that he had tried a year ago to get a photograph of this case, but had not succeeded. In the meantime he had applied nitric acid to some spots on the face, and some of these had disappeared. Recently he had succeeded in getting an excellent photograph, and he presented the child to the Society on account of the well-marked and extensive lesions of the skin. It was very much like the classical cases reported by Hyde and others. A very large and hairy patch on the cheek had disappeared under the acid, and though the scar was not very smooth, there was a decided improvement in the appearance of the child, and the parents were much pleased with the result. A number of small pigmented spots on the forehead had also disappeared.

DR. STERN said that a few months ago he had a very interesting case of hairy pigmented naevus covering one side of the face of a little girl nine years of age. It looked as if a piece of the scalp had been cut out and planted there. It appeared to be too large for treatment with acid, and he told the mother that if she was willing to take the chance of an X-ray burn, which might take months to heal, he would try to burn it off with the X-ray. The child was protected very carefully, with the result that a second degree dermatitis produced was confined entirely to the naevus itself. The burn healed in about two months, leaving a very good scar, with a wonderful improvement in the child's appearance.

Lupus of the Mucous Membrane of the Nose. Presented by DR. FORDYCE, through the courtesy of DR. TRIMBLE.

The patient was a girl of 21 who presented a few lupus nodules on the tip of the nose. When 10 years of age the trouble began on the mucous membrane of the nostrils and has continued since that time, resulting in their almost complete obstruction. She has had a number of surgical operations to relieve this condition, but unsuccessfully. The patient was presented as an example of lupus of the mucous membranes with very little involvement of the cutaneous structures.

DR. SHERWELL said that when he was doing larvngological work some twenty years since, he had presented a case before the Larvngological section of the Academy which he had had under treatment then for a year or so, and subsequently for years. In this case the lupus had its beginning at the ala nasi and subsequently and progressively the lips, oral cavity, fauces, etc. The tonsils were removed by guillotine, the hæmorrhage was so great from a form of sclerosis or non-contractivity of tissues that it was feared the patient would die. The condition continued, and finally destroyed a crescentic portion of the epiglottis, and under continual though decreased activity extended down to the bifurcation of the trachea, the bronchial tubes, as far, therefore, as could be observed by mirror. He had shown it then as a case of lupus vulgaris on account of amount of destruction of epiglottis, but thinks it more likely to have been erythematous. He had watched the girl, the patient, for many years thereafter. No dyscrasia or diathesis at any time; she remained robust and well, remarkably so. It seemed to him to be a case analagous with that now presented.

DR. LUSTGARTEN said that his experience with lupus was rather limited, but he thought mucous membrane lesions yield more quickly to X-ray treatment than do lesions of the skin. The only bad case of this kind that he had seen was in a native American, and in this instance the lesion of the palate and nose yielded much more readily than the skin lesions. He advised the treatment of this case by the X-ray.

Case Presented for Diagnosis (Young negro man). By DR. FOX.

Dr. Fox said that although he had made his diagnosis some time since, he preferred to present this case to the Society as a case for diagnosis. The patient came from Virginia, and some months ago when first seen the disease seemed to be specific. He was put upon specific treatment and a mercurial plaster applied, but it did not get well, although it improved a little. The raised border is soft and painful.

DR. FORDYCE said that under the microscope it suggested blastomycosis.

DR. LUSTGARTEN said that he thought the diagnosis lay between tuberculosis and blastomycosis.

DR. MEWBORN said that the case certainly resembled some of the cases pictured in Hyde and Montgomery's papers, as blastomycosis.

DR. BRONSON suggested that owing to the peculiar location of the disease it was especially exposed to pressure and friction, and the resulting irritation might cause a syphilide to follow an unusual course. For this reason, notwithstanding that the disease at present did not look like syphilis, he would not at once exclude that disease.

In reply to an inquiry from DR. DADE, DR. FOX stated that the lesion began seven years ago as a little white pustule which healed within a month, then broke out again, and spread slowly. When he first saw it he was strongly inclined to the view that it was syphilis, but the fact that it did not get on well under the treatment, together with the character of the border and the tenderness, led him to feel that he was mistaken in his diagnosis. He hoped to present the case again later.

Morphea. Presented by DR. FOX.

The patient, a woman, showed well-marked patches on the cheek and several on other parts of the face, but had none any where else. She had a burn on one side of the face and it was almost immediately followed by this morphea. The other side of the face which was not injured is perfectly free from disease. The border of the patches has a faint violaceous tint.

DR. SHERWELL said that the case which he had recently shown of a long continued indolent ulcer on the cheek, has almost healed up, but there is evidence that another of these white patches is coming on the other side of the face near the temple. He would see him again, and hoped to present him to the Society another time.

DR. JACKSON said that the most remarkable feature of this case was the etiology, that it seemingly began in a burn. By daylight there is visible a great deal of pigmentation where the burn was, and about the morphea patches.

DR. H. H. WHITEHOUSE, Secretary.

BOSTON DERMATOLOGICAL SOCIETY.

January Meeting.

DR. JOHN T. BOWEN in the Chair.

Primary Lesion of the Chin Presented by DR. HARVEY P. TOWLE.

The interest in this case lies in the occurrence of the primary lesion on the chin and in the possible accompaniment of a secondary affection as shown by the abundant yellowish crusting of the lesion and by the tenderness and enormous enlargement of the lymphatic glands beneath the chin.

S. S. came to the Skin Out-Patient Department of the Massachusetts General Hospital, October 26, 1906, with the following history: Three weeks ago he was shaved by a barber. A few days later a small red pimple appeared upon the chin which has continued to steadily

increase in size. The glands beneath the chin grew larger and larger and became so tender, especially on the side opposite the sore, that motions of the jaw were painful. On examination the patient presented upon the left side of the chin a lesion which was a little larger than a quarter in size, perfectly round, sharply defined, elevated about one-sixteenth of an inch above the skin, with rather steep sides and a flat top completely covered with gummy, yellowish crusts. On pressure it was firm and elastic but not hard. The left submaxillary gland was swollen to the size of a grape, was rounded, firm, and not tender. The gland on the right side was larger than the one on the left and was tender. The throat was negative. Except for one epitrochlear the other glands were not enlarged. No trace of an eruption could be found on the body. Two weeks later the patient developed scabies. The glands remained about the same as when first seen while the lesion on the chin secreted less profusely and had grown firmer. No rash was present. November 13, the sore had developed two small, irregular funnel-shaped depressions near its center and a questionable roseola was found over the body. November 20 (forty-six days after the appearance of the lesion on the chin) there was an unmistakable profuse roseola over the flanks and back. The primary lesion was drier and firmer to the touch but not as indurated as we are accustomed to find it elsewhere.

In this case the diagnosis of extragenital chancre was generally accepted. The duty of the physician towards the public, in cases of primary lesions of the face, was touched upon, as well as the advisability of such cases being reported to boards of health. The problem of public control of syphilitics was avowed extremely difficult of application but it was the sentiment of the Society that much good can be done if the physician faithfully discharges his moral obligations towards every case coming under his advice.

Late Syphilide. Presented by DR. ABNER POST.

A patient treated by Dr. Post seven years ago for syphilis had recently consulted him again for sores on the neck and an eruption limited to the arms and legs.

On the right side of the neck several deep red, infiltrated, discharging ulcers were seen, some of which intercommunicated. Further examination revealed, on the extensor surfaces of the forearms and the anterior aspects of the legs, numerous scattered, pin's head to pea-sized rather dull red papules, all capped with firmly adherent lustrous scales. Removal of the scales from several of these lesions exposed small round sharply-defined ulcers.

In considering the discharging ulcers on the right side of the neck, it was thought that actinomycosis ought to be excluded before declaring them gummata. As to the outbreak on the extremities; the papules to a considerable degree resembled those of psoriasis but the ulcers exposed on removal of their crusts lent weight to the probability of their syphilitic nature.

Gumma of the Lymphatic Glands. Presented by DR. C. M. SMITH.

A male patient, 42 years of age, had an initial infection of syphilis twenty years ago. Two months ago sore throat was complained of, which was said by his physician, to be syphilitic. Three weeks ago a swelling appeared on the inner surface of the left thigh which has since increased in extent and prominence. This swelling now extends from the groin half way down the thigh, and appears as a diffuse somewhat nodular and indurated mass of subcutaneous infiltration. Subjectively the patient complains of soreness and a sensation of tension. Over the forehead, the anterior surface of the right wrist and on the legs, a number of small pigmented scars are visible.

The condition presented by this patient was thought unusual. By members of the Society particularly interested in syphilology, the process was believed to be a gummatous infiltration of the lymphatic glands; a rare manifestation of syphilis.

Dermatitis Herpetiformis. From the service of DRs. C. J. WHITE AND BURNS.

John S., 28 years of age; occupation, steam-fitter. Family and previous history unimportant in relation to the affection under consideration.

The skin disease for which the patient is shown to-night began three years ago. It has persisted ever since, sometimes improving but always eventually relapsing so that there has been no time since its onset that the process has completely healed. The first lesions noticed by the patient are said to have been (to take patient's own description) "pimples covered with little scabs," mainly situated on the extensor surfaces of the forearms which itched considerably. The eruption remained confined to these regions for six months when an outbreak of "water blisters" appeared on the buttocks, soon followed by similar lesions on the arms. Subsequently, outbreaks of like character have occurred on the neck, shoulders, legs, hips and nose. The patient has now been under the observation of the Dermatological Staff of the Massachusetts General Hospital for two years. Confined to the aforementioned regions, the eruption has never been profuse. The lesions have consisted of pin's head to large pea-sized vesicles, always showing a tendency to rapid resolution and the formation of crusts, to bullæ one quarter of an inch in diameter. At times grouping of the lesions has seemed a distinctive feature of this dermatosis, yet at others it could scarcely be said to be noticeable. Pruritus has always been a marked symptom, in fact that which has given the patient greatest concern.

Two weeks ago urticarial lesions appeared over the back, shoulders and extensor surfaces of the upper arms. When the patient came a few days ago on account of this new development, he presented over these regions typical wheals, discrete and in several places aggregated into clumps of circular and gyrate configuration. Many of the smaller

wheals have been ephemeral but the patient feels confident that the larger, figured areas, have persisted for ten days without change beyond some crusting of their surfaces. For several weeks just previous to the urticarial outbreak, 10 grs. of quinine per diem had been taken.

The protracted course of the dermatosis presented in this case, in conjunction with its vesicular and at times grouped lesions, had inclined those who had had opportunity to observe it to regard the affection as dermatitis herpetiformis. Several members who viewed the case for the first time were unwilling to make that diagnosis from the rather complex condition seen. As to the recent development of an urticarial nature, it was thought that the quinine taken by the patient might produce such an eruption, which occurring on a skin already in an irritable state, excited lesions of an aggravated character.

Psoriasis followed by Dermatitis Exfoliativa. Presented by DR. JOHN T. BOWEN.

This patient (a man 25 years of age) has had psoriasis of a very obstinate character for the past eight years and for six years has been under treatment by the Dermatological Staff of the Massachusetts General Hospital. The scalp has been profusely implicated, the borders of which have usually shown well defined margins. The glabrous skin has from time to time been extensively involved, the palms and soles being about the only regions that have not been affected. The nails of both hands and feet have undergone marked dystrophic changes.

Three months ago the patient was admitted to the Ward for Skin Diseases of the Massachusetts General Hospital. During the first few weeks of the patient's sojourn in the hospital considerable chrysarobin was used on the trunk and limbs. Whether that drug may have had something to do with the subsequent outbreak is open to question.

About October 16 the patient began to complain of a sensation of heat and tension in the skin. Gradually the skin became universally reddened and covered with branny scales. The psoriatic lesions became less and less prominent until finally they disappeared altogether. Soon the picture presented by the patient was that of dermatitis exfoliativa; the skin being highly reddened and slightly infiltrated but the desquamation never exceeded a branny quality.

The case is presented as an interesting incident in an unusually obstinate expression of psoriasis.

As to the probable origin of the exfoliative dermatitis opinion among the Society seemed divided. Chrysarobin was thought capable of producing such a condition in the course of treatment of psoriasis while it was also held that a condition of exfoliative dermatitis occasionally occurred during the course of chronic psoriasis.

Dermatitis Herpetiformis. Presented by DR. JOHN T. BOWEN.

John S. aet. 10; family and previous history unimportant in relation to the skin disease. The dermatosis from which the patient is

now suffering began about the first of last August; appearing at the outset on the left arm and soon extending over other portions of the integument.

At the time of the patient's admission to the hospital the entire thoracic region, front and back, was covered with many vesicles and bullæ, pea to marble-sized. Some of the lesions were intact, others ruptured; of the latter some were crusting and superficially abraded with somewhat inflamed bases. The arms, thighs and genital region presented many vesicles with a distinct tendency to grouping. The face, scalp and hands were exempt.

From the date of entrance of the patient to the hospital on September 15, to the present time, the course of the affection has consisted of a series of relapses and remissions. He still shows many lesions although the process may be said to be in a relatively inactive stage.

Much treatment has been essayed: arsenic, quinine, thyroid extract and adrenalin chloride having been successively administered without any pronounced effect on the disease. Externally, a dusting powder of borated starch has seemed to contribute more to the patient's comfort than any other remedy, and also a simple treatment, in connection with starch baths, has seemed to exert the most favorable influence over the disease.

DR. BOWEN's diagnosis of the case was accepted. It was remarked that, in the old days the affection would have been called pemphigus. To those however, who recognize the dermatosis most commonly called dermatitis herpetiformis, the symptoms and course of the process presented by this boy would readily fall within the accepted descriptions of that affection.

F. S. BURNS,
Secretary.

SECTION ON DERMATOLOGY.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting Held April 2, 1907.

DR. A. R. ROBINSON in the Chair.

A Case of Psoriasis Showing Great Improvement under Internal Treatment. Presented by DR. BULKLEY.

The patient is a woman twenty five years of age. She was admitted to the New York Skin and Cancer Hospital in April, 1902, and for a long time grew worse, but finally improved while taking mixed treatment internally, and using an ointment containing chrysarobin, pyrogalllic acid, and salicylic acid externally, so that she was discharged well in March, 1904. She was admitted again in March, 1905, the disease having recurred four weeks previously on the scalp and the left leg. In spite of the most varied treatment, she grew worse until January, 1906, when she improved rapidly for about three months while taking

carbolic acid internally, only to relapse in April, 1906, so that all treatment was suspended. She was then given nitric acid internally, beginning with four drops three times a day, and gradually increasing to ten drops three times a day, local treatment being cut down, and often omitted altogether. The improvement was remarkable. Her condition had been so bad that a beginning pityriasis rubra was suspected, but the inflammation gradually subsided, and by January, 1907, there were only two small areas of disease.

Erythema Multiforme Papulation. Presented by DR. CLARK.

The patient is a Russian, forty-two years old, married, the father of three children. His father had scrofula and one daughter had frequent attacks of a dermatitis like that of poison ivy. The patient has always been healthy except that six years ago he had an attack similar to the present one, but occurring mostly on the hands. It was followed by peeling and was said by the doctor to have come from a bad stomach. The present attack began twelve days ago. It was preceded by two months of poor appetite, for which the patient took whiskey, and by two days of absolute anorexia and abdominal discomfort. There was no chill, fever, headache, or pains in the back or limbs. The patient first noticed on arising that his hands itched, and there were a few small red pimples on the backs of them. After a hot bath other red pimples rapidly appeared with some general swelling of the hands, and a few scattered pimples on the body. After twenty-four hours, the palms, backs of the hands, fingers, wrists and part of the forearms were thickly set with papulo-vesicles and papules little larger than sago grains. On the body, extremities, and penis were scattered small, red, shotty papules on a slightly erythematous base. The mucous membrane of the mouth and throat were normal. The patient complained of a feeling of heat in the hands, but little or no itching, and of more or less discomfort in the stomach and intestines. A cathartic and a rhubarb and soda mixture were given, and after another interval of twenty-four hours the papulo-vesicles on the palms, back of hands and fingers were practically confluent, and the whole hand was swollen and stiff. Here and there on the arms and body many of the papules were distinctly umbilicated, but none showed a tendency to form pustules. The eruption on body and extremities consisted of shotty papules on an erythematous base, and was not very thickly set. On the soft palate was a fine pin-point eruption like that of scarlatina, and there were indistinct aphthous patches on the lips that may or may not have been bullæ. The eruption then presented a quite typical picture of early variola. At no time had there been any eruption on the face, neck, or scalp, and the temperature had not been above 99.4° F. In the next two days the lesions began to resolve so that the board of health, who had made a tentative diagnosis of smallpox, discharged him from observation; and now, nine days

after the onset, the patient is feeling well, the scattered papules have flattened out into erythematous patches and stains which do not entirely disappear under pressure, the swelling of the hands has gone, and the hands are desquamating as they did in the attack of six years ago.

DR. DILLINGHAM was surprised that a diagnosis of smallpox had been made. With such a confluent eruption on the hands, there would be some constitutional symptoms and a more general eruption on the rest of the body: the absence of any lesions on the face with the confluent eruption on the palms and hands would by itself be sufficient to exclude smallpox. The eruption is undoubtedly due to an intoxication of some kind, and for want of a better name should be classified as erythema multiforme.

Raynaud's Disease. Presented by DR. WILLIAM S. GOTTHEIL.

Mrs. Mary J., aged 31 years. Suffers from trouble in her fingers, arms, toes, and face for five years. Has never been frostbitten, but attributes her trouble to having had her hands so much in the freezer when she sold ice cream in her candy store. It began with whiteness and "deadness" in the little fingers of both hands; gradually the other fingers became affected, then the hands and arms, toes, and finally the cheeks, nose, and ears. In summer she does not suffer much, though her fingers are always white; but in winter they are bluish even in the house, become blackish on exposure to cold, and are intensely painful. In addition to this, painful fissures appear on the slightest exposure to cold water or air; so that at times she is entirely incapacitated, cannot sleep at night, and even states that she has lain awake with pain all night at times. All the fingers of both hands are white and cold, even after having been for half an hour in the warm atmosphere of the house; after a time, and especially if the air is very warm, they become blue and hot. The condition affects the entire hand and the arm up to the elbows; the toes are less affected; the cheeks are swollen and bluish; the nose and ears are white and cold.

DR. HOWARD FOX had observed this patient a number of times at the Vanderbilt Clinic, about a year ago. On one very stormy day, her hands presented a classical picture of local syncope, the fingers being very cold, white, and absolutely cadaverous in appearance. In this case, as in another under his observation, there was a history of paroxysmal disturbance of vision. During the attacks, which lasted about an hour, all objects appeared blurred, and reading was impossible. The patient gave no history of syphilis. Examination of her husband showed a marked tubercular syphilide of the elbow.

Psoriasis of the Nails. Presented by DR. LAPOWSKI.

The patient is a girl 16 years of age. Her brother died of convulsions when nine years old, and she herself is hysterical and epileptic. Her present trouble started two years ago. She now has on the chest, and especially on the back, several scattered pea-sized patches of beginning psoriasis. There are similar patches on the forearms. On scratching the papules, papillary bleeding occurs. On either cheek a small

hyperæmic area marks the site of similar disappearing lesions there. The skin over the elbows and knees is somewhat thickened. The scalp is covered with dandruff. The nails of the index, middle, and fourth fingers are transversely furrowed and of a dirty fawn color. The nails slope toward the distal ends, where they are thin and look as if worn away.

DR. DILLINGHAM did not agree with the diagnosis. He said that the patient had a seborrhœal eczema of the scalp, and that he considered the lesions on the body as of the same character. The scales did not come off in lamellar form, and when removed showed slight exudation and an inflamed surface. He added that a similar condition of the nails, which was often seen, might be due to a variety of cause, and that a microscopical examination should be made to determine whether it was due to the ringworm fungus.

Favus of the Nails and Scalp. Presented by DR. LAPOWSKI.

The patient is a woman twenty-four years of age. Her scalp has been affected since childhood, her nails for twelve years. The nails are dry, lusterless, furrowed, fissured, and split. Microscopical examination of the hair and of the nails showed the presence of the *achorion Schönleini*. The scalp shows remarkably little scarring, for a case of such duration.

A Disease of the Lips, for Diagnosis. Presented by DR. LAPOWSKI.

The patient is a woman forty years of age. Her present trouble started nineteen years ago, and with remissions and exacerbations it has persisted ever since. The lips are swollen and surrounded by an elliptical border, especially prominent on the upper lip. The semi-mucosa is reddened and swollen, and presents many dry fissures. On the lower lip more than on the upper, there are dark brownish scales, centrally adherent, with raised margins. At the junction of the semi-mucosa with the mucous membrane, both lips are covered with whitish pellicles, easily removed. The lips tend to stick together. There is no itching.

A Disease of the Lips, for Diagnosis. Presented by DR. LAPOWSKI.

The patient is a girl nineteen years of age. Her present trouble started four years ago, and is paroxysmal, as in the preceding case. The lips are red and slightly swollen during the paroxysm, which lasts two or three weeks, very dry, and longitudinally fissured. There is a feebly desquamating, very red border surrounding the semi-mucosa in the form of an ellipse. Two years ago the patient developed alopecia areata. The case is presented in the belief that it is the early stage of the same affection with which the preceding patient is afflicted. Both cases are presented for diagnosis, as the diagnoses eczema or seborrhœic eczema do not throw any light upon the subject.

DR. DILLINGHAM considered both to be cases of eczema. In the older woman it might be seborrhœal, but careful examination of the lips of the girl showed vesicles and an acute eczematous process.

Lichen Ruber Planus Universalis. Presented by DR. LAPOWSKI.

The patient is a man, forty-five years of age. Nineteen months ago an eruption appeared on his face and palms, and then spread all over his body. He says the skin was red and slightly scaly. Since that time he has been under treatment by various physicians. Three weeks ago he came to the Good Samaritan Dispensary in the following condition: the scalp, face, trunk, upper extremities, except the hands, the thighs and the legs are involved. The eruption consists of variously-shaped (ringed, half-ringed, and crescentic) patches with free centers. Here and there the patches are covered with shiny scales, like those of psoriasis in color. Separate quadrangular lichen-like papules can be easily distinguished. There are no subjective symptoms. The mucous membranes and the nails are free. The treatment has been hypodermic injections of atoxyl.

DR. DILLINGHAM agreed with the diagnosis, although it was a very unusual case. In the last few years he had seen many cases of this disease that would not have been considered such twenty years ago.

DR. WILLIAMS said that the shape of the patches and the character of the scales made him incline to a diagnosis of psoriasis.

DR. HOWARD FOX had seen the patient during the past year at the Vanderbilt Clinic, where the diagnosis of lichen ruber had been made without hesitation. At that time there were numerous areas of discrete acuminate papules characteristic of the disease. The hands showed marked keratosis. There were no lichen planus lesions visible. Although the appearance of the eruption had changed greatly, Dr. Fox would not change his original diagnosis.

DR. LAPOWSKI said that although the presence of scales and their color might speak for psoriasis, this desquamation was visible only after the application of ointment. Where no fat was applied to the skin, hardly any scales were visible, while in psoriasis the reverse condition existed. The localization on face and scalp does not speak against lichen. Cases of such localization are reported.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the society was held Tuesday evening, April 16, 1907, in the amphitheater of Jefferson Hospital, Tenth and Sansom Streets. Dr. M. B. HARTZELL, presiding.

A case of numerous scars with suppurating lesion over the lower border of the lower jaw was shown for diagnosis by Dr. H. Shoemaker. The patient was a boy about seven years of age. At the base of the nose was a vertical scar about an inch in length and deeply indented, seeming to point to trauma as its cause. On the right lower margin of the jaw there were two old scars which were firmly adherent to the underlying structures, and, according to the history, were becoming more so. Upon the left side of the lower jaw there was a rather large, suppurating lesion. The condition had existed for a period of about 5 or 6 years. While the case was in all probability tuberculous in character, a possibility of syphilis was conceded.

A case of beginning epithelioma of the lower lip was exhibited by Dr. Pfahler. The patient was a rather elderly man, and had had more or less discoloration and abrasions on the mucous surfaces of the lip for seven years. He had been an inveterate smoker, but had recently abstained entirely upon the advice of his physician. The condition at this time, while not marked, was sufficiently characteristic to justify a diagnosis of epithelioma. The use of the X-ray was suggested as therapeutic measure in this case, but the consensus of opinion was that it should be used only in the most moderate dosage.

A case of bullous dermatitis, previously shown, was again exhibited by Dr. Schamberg. The condition was regarded at the time of its first exhibition as being related to vaccination. It was brought to the attention of the society at this time in order that the marked improvement that had taken place under the administration of arsenic, might be noted. Shortly after having been shown before, arsenic was given and an improvement had taken place; this was discontinued for a while and there was a relapse. Upon resuming the arsenical medication the condition progressively improved so that within 28 days after having been first seen, the eruption had entirely disappeared. Photographs were shown of the case at different periods of the condition.

A case of scleroderma occurring in a middle-aged German woman was presented by Dr. Stelwagon. The duration of the condition was ten years. The affection was quite marked upon the face and hands, the firmness and contraction being especially prominent. The contractions of the fingers were rather marked.

A case of inflammation of the skin with superimposed vegetations was brought before the society by Dr. Pfahler. The patient was a rather elderly man, and gave a history of having had the condition for about eight months. According to the history it had followed mosquito bites. The affection was situated upon the ankles. The right ankle presented for the most part erythematous and erythematous-squamous lesions, while the left, in addition, showed a rather large, fungating lesion. The condition resembled in many respects mycosis fungoides, but the possibility of dermatitis vegetans was also suggested.

A case of sycosis vulgaris treated by opsonic therapy was shown by Dr. Schamberg and Dr. Gildersleeve. The case was one of long duration, but had been under observation only two weeks, as regards this treatment. During this period he had received 2 injections, but the improvement had been especially pronounced, as was shown by comparison of his present condition with photographs taken before instituting the treatment. The technic of the treatment was given in detail by Dr. Gildersleeve.

A case of a vegetating lesion upon the chin, previously shown by Dr. Schamberg was again presented. At a previous meeting the condition was considered to be luetic by some of the members, and by others as a parasitic affection. In the five months it had been under observation it had undergone little or no change.

A case of possible tuberculosis of the skin was exhibited by Dr. Schamberg, occurring in a boy ten years of age. At a remote period a portion of a metacarpal bone of the right hand had been removed, and over this site had appeared a granulating area which was readily removed by pyrogallic acid. The site of the disease was now marked by a rather bluish scar.

A marked case of alopecia areata was shown by Dr. Schamberg. The condition had lasted about three years and had followed fracture of the skull. Various kinds of treatment had been employed, but with little or no effect. The most encouraging results had followed exposure to the Finsen light and the mercury vapor lamp.

A microscopic preparation of a section from a case of sarcoma cutis was presented by Dr. C. N. Davis. The condition appeared as a papillary tumor, and externally suggested nothing of a malignant nature.

SAMUEL HORTON BROWN, M. D., Reporter.

MANHATTAN DERMATOLOGICAL SOCIETY.

56th Regular Meeting, January 4th, 1907.

Dr. EDWARD PISKO, Chairman.

Alopecia Areata Totalis. By Dr. A. BLEIMAN.

A. G., female, 8 yrs. old, born in Russia, 3 yrs. in this country. Pertussis at 18 months, morbilli at 5 yrs.; no complications; has been healthy otherwise, save for a chorea minor that began 1 year ago, at the same time that the alopecia was first noticed. The defluvium was first in circular spots, but later there set in a more or less general shedding. This became more and more pronounced, in spite of varied treatment. At the present time more than three-quarters of the scalp area is hairless, smooth and glistening. Only a small handful of hair is left in two or three places between the areas and she is losing this also rapidly. Both eyebrows are entirely gone, as are also the lashes of the left lower lid; there are a few lashes left in the right lower lid; the upper lids still have them. The indications point to the complete and permanent total alopecia.

Dr. Ochs had seen several cases of areate alopecia after chorea; they were usually of this malignant type, and the prognosis was bad. Dr. GOTTHEIL recalled

the fact that a considerable number of cases following nerve injuries had been recorded, and that the chorea was probably connected with the alopecia in this case.

Alopecia Syphilitica of Unusual Severity. By Dr. A. BLEIMAN.

Male, aged 30 years, chancre 4 months ago; pharyngitis and laryngitis 6 weeks ago; buccal mucous patches at the present time. Hair began to fall out 6 weeks ago, ten weeks after the appearance of the sclerosis. The defluvium is characteristic, occurring in small irregular patches all over the scalp, and has gone to the extent of an almost complete alopecia. Only on the occipital region, where the falling was least marked, is there enough hair left to give the characteristic "moth-eaten" appearance. The rest of the scalp is practically bald, though under the specific treatment that he has taken for some weeks languo hair is beginning to appear all over the scalp. The eyebrows are affected, the hair having fallen in places; the lashes are intact.

Syphilitic alopecia in moderate degree is, of course, a regular symptom of the disease; but none of the members had seen it so extensive and so nearly complete. Dr. GOTTHEIL had noticed that the cases that showed a marked febrile action during the early stages of the infection were the ones in which the defluvium was most marked; a point of interest in view of the alopecia occurring after the various fevers, operations, etc.

Neurofibroma. By Dr. E. L. COCKS.

Mrs. M., American, aged 36 years. General health is normal. Cutaneous lesions began to appear 18 yrs. ago, and have been present ever since. The first one was a pea-sized, subcutaneous, painful nodule on the middle third of the anterior surface of the right leg. Since that time new lesions have appeared from time to time; the old ones have persisted and have increased slightly in size. There are a large number of lesions now; thus on the left arm anteriorly there is a chain of them all the way down; on the right arm there is a similar chain, but the tumors are smaller and more disseminated. From the crest of the ilium to the knee on the side of each leg there are larger growths; most of them are hazel-nut sized, but some are as large as a small egg. Below the knee there are only one or two tumors on each leg. There are other similar tumors on the trunk; but the patient is decidedly averse to a complete examination, and the case is unusual and might be lost. For the same reason no microscopical examination has been made. All the tumors are freely moveable, and are evidently in the subcutaneous tissues; most of them, however, are adherent to the under surface of the skin and move with it. The smallest are pea-sized, the largest nearly two inches in diameter; most of them are small nut-sized. Some are apparently globular, whilst others are flattened; no lobulation is apparent. Spontaneous pain, as well as tenderness, are prominent features. Pressure on a tumor causes pain that radiates in all directions. In a general way

the tumors follow the course of the main nerves, though no direct connection with them is demonstrable.

The diagnosis was concurred in, though the desirability of a biopsy and sectioning was dwelt on in view of the fact that some of the tumors felt much like subcutaneous lipomata.

Exfoliatio Areata Linguae. By Dr. M. B. PAROUNAGIAN.

J. F., 27, German. Syphilis in 1901; roseola, cephalgia, mucous patches of mouth and tongue, tonsillar ulceration. All symptoms improved under the usual treatment except the tongue; that was recalcitrant. One year post infectum papulo-squamous lesion of the left palm, which persisted until a few months ago. During the first year there was also splitting of the finger nails and circinate lesions on the lower lip and upper eyelids as well.

At present the only lesions are on the tongue. The organ is somewhat enlarged; on its upper surface along the margins are numerous lesions, some circinate, others crescentic or gyrate, formed by elevated, whitish ridges running parallel to reddish surfaces which look as if the epithelium had desquamated from them. The reporter can vouch for the fact that these lesions change very rapidly; in a few days the white ridges disappear leaving red, shiny areas that gradually assume the appearance of the normal surface of the tongue. Meantime new lesions of various shapes and sizes appear elsewhere on the organ. Sometimes, under the influence of vigorous treatment, only two or three lesions are left; but a fresh crop invariably appears. There has been no pain or inconvenience, except when partaking of acids or very hot or cold drinks. The treatment has in the course of years included almost all the local measures, even to the caustic like the acid nitrate of mercury; and also all possible general measures, including change of climate, etc. He has had iodide in all doses, and mercury in various forms, including the salicylate injections.

All these measures have never done more than give him temporary and partial relief.

Dr GEYSER suggested the employment of the high-frequency current, which had done him good service in a similar case. Dr. GOTTHEIL objected to the terminology that the reporter employed. It was a circinate exfoliative glossitis of syphilitic origin, and reminded him very forcibly, both in appearance and in behavior, of the late circinate palmar and plantar syphilides. The tongue looked exactly like that shown in a child he had shown in November meeting. In this case there could be little doubt of its luetic nature; and it was suggested to him that possibly the older idea was correct that all these lesions were due to syphilis, acquired, hereditary or in the third generation. Certainly, no conclusions could be drawn from the non-efficacy of anti-luetic treatment in any case; and it is practically impossible to exclude the past existence of syphilis in the grandparents in any case. If acquired and heredosyphilis cause this lesion, why could not syphilis in the third generation do so, as there was no other definite etiological factor, and the cases looked and behaved in exactly the same way.

Paget's Diseases. By Dr. W. S. GOTTHEIL.

Dora B., aged 42 years, has had trouble in her right breast for 8 months, beginning with itching and crusting at the nipple. She has been treated with various salves without result. When first seen, three weeks ago, the nipple was already partly destroyed, the lower half gone and cicatrising, the upper half raw and eroded. On the skin of the breast immediately above the affected nipple was an irregularly circinate eroded area an inch and a quarter in size, with a hard base and distinctly waxy margins, with scarcely any sensitiveness.

The patient had been told that amputation of the breast and removal of the axillary lymphatics was her only chance, and she was prepared to undergo that operation. She has had 6 X-ray sessions, with very marked improvement resulting. The ulceration of the nipple has almost healed, and the lesion on the skin above has diminished very considerably in size. She could be rapidly cured of course, with a local caustic.

Hydroa Pruriginosum. By Dr. R. ABRAHAM.

M. S., male, aged 62 years. The present eruption, which is the first skin affection that he has ever had, began 4 weeks ago with general itching. One week ago a bullous eruption appeared on both elbows, the lower thighs, and the upper legs, affecting exclusively the extensor surfaces. At the present time the skin of the entire body is hyperæmic and intensely itchy, and there are numerous ruptured and unruptured bullæ on the areas above mentioned. Some of the ruptured bullæ have left raw surfaces, but in most cases the affected area is covered with a layer of macerated epithelium. The unruptured bullæ contain either a clear serum or a sero-purulent fluid. They vary in size from a pea to a large nut, and are in some places isolated and in others grouped and even confluent. They are evidently of different ages and are still coming out continuously. There are also numerous pigmented areas on the limbs that mark the site of previous bullæ. The mucosæ are not involved, the superficial lymphatic glands are unaffected, and there is no constitutional disturbance.

In the discussion of the case the opinion was general that it was to be regarded rather as a bullous urticaria, since plain urticarial lesions were also present on various portions of the body. Dr. PAROUNAGIAN believed, since all the bullous lesions were on the elbow and thighs, some external irritant was the cause of the urticarial efflorescences. Dr. GOTTHEIL recognized the case as one that had been under his care at Lebanon Hospital for a general and violent seborrhæal eczema, and commented on the absolute worthlessness of the histories in the great majority of these cases.

Lichen Planus Annularis. By Dr. L. OULMANN.

M. L., male, aged 44 years. Eruption began 4 months ago on his left leg, and soon thereafter appeared on his other leg, on his forearms, and penis. Some 4 weeks ago he first noticed some nodules in the mouth.

All these lesions have been persistent, extremely itchy, and have slowly grown in size. At the present moment the patient presents a large number of typical lichen planus lesions, together with a number of annular efflorescences on the arms and legs. These latter form circular and oval patches an inch or more in size, their margins being composed of a compact wall of lichen planus lesions, dull red, rectangular, shiny-topped papules, their centers purplish in color, without distinct lesions, and apparently atrophic. On the oral mucosa of the cheek on the left side, and on the right side of the palate, are two affected areas. They are composed of aggregations of greyish-yellow nodules, covered with macerated epithelium, and showing neither the characteristic color nor the shape of the dermal lesions.

Since the itching was a very prominent symptom in this case, interfering with the patient's rest and general nutrition, Drs. GEYSER and COCKS recommended the X-ray as the quickest and surest symptomatic remedy.

Ulcus Perforans Pedis. By Dr. B. F. OCHS.

Geo. R., aged 39 years, had a chancre in 1903. There was no definite history of the nature of the lesion, or of any consecutive symptoms or treatment. Patient was in good health until October, 1905, when a chiropodist trimmed a corn on his right small toe. Two weeks later the foot began to swell, and turned black and blue; no pain at all. In December, '05, foot was amputated 3 inches above the ankle in the German Hospital. Whilst there, had what was apparently a large phlegmon in the left axilla, which broke, discharged some pus, and left a dark, pigmented scar. In October, 1906, he noticed a soreness about a callus under ball of the left great toe, which finally developed into an open sore for which he applied for treatment. The entire foot was swollen, dark purplish, and slightly scaly and itchy; several callosities on the sole. On the under surface of the great toe is an irregular, deep, punched-out ulceration; there is no surrounding inflammation, and no pain on pressure. Further examination shows the presence of lancinating pains, feeling of constriction around the waist, non-reacting pupils, reflexes diminished or gone, frequent vomiting spells, occasional attacks of involuntary urination and defecation, areas of cutaneous hyperæsthesia and anæsthesia and ataxia. The diagnosis of locomotor ataxia was therefore fixed.

Dr. GOTTHEIL called attention to the vascular conditions in the foot, which were more important than the ulceration itself. The permanent coldness and bluish-black color of the extremity were evidences of the profound involvement of the nervous structures, the local ulceration being evidently due to the added "insults" of pressure from the keratotic plaque and the shoe. In the other foot this had advanced last year to a degree that meant present or threatened gangrene, and had necessitated amputation. This would probably be the case with the remaining limb. He had in the past shown case of perforating ulcer in general sarcoma of the skin, and in leprosy, as well as in spinal cord and general nervous affections.

Dermatitis Medicamentosa. My Dr. L. BOWMAN.

L. B., male, aged 44 years, had used a lotion of unknown composition and applied a belladonna plaster to his right shoulder some 15 days ago for rheumatic pains. Three days afterwards the plaster was taken off, and the present eruption, composed of minute, closely aggregated, copper-colored papules was noticed. This spread rapidly, so that a few hours after his admission to Lebanon Hospital next day his whole trunk was covered with it. Temperature was normal. Rheumatic pains felt in various joints with considerable itching. The absence of any constitutional symptoms of belladonna poisoning, with the rheumatic pains and the generalization of the eruption long after the discontinuance of the local applications, led most of the members present to regard the case as one of papular multiform erythema.

Eczema and Syphilis of the Palms and the Soles. By Dr. B. F. COCKS.

J. H., male, aged 31 years, gave a history of chancre in October, 1894, followed by roseola; but little treatment. Sore on penis in Aug., 1900, evidently taken for a primary lesion and treated with inunctions in a military hospital. In Aug., 1904, centers of both palms began to be affected; lesions then appeared on the soles, and all of them have spread slowly and have been improved, but not cured, by treatment. In the center of each palm is a sharply defined, scaly patch, the edges of which are composed of minute papules, and the center of which is slightly atrophic. On the outer surface of the right palm is a distinctly serpiginous and scaly lesion. The balls of the finger tips are smooth and shiny, there is thickening and fissuring of the sides of the fingers and the interdigital clefts and the nails are thickened and show deep transverse ridges, and there is a marked chronic inflammation of the nail bed on two of the fingers. Similar but less marked lesions are present on the soles. The evidences of the presence of both affections are therefore unmistakable.

Dr. Cocks said that bilaterality is not common in these late specific palmar and plantar lesions; here all the extremities are affected. Dr. GOTTHEIL referred to a patient of his under treatment for a year past for a precisely similar condition of both palms. Sometimes the eczematous symptoms are so marked that they completely obscure the syphilitic infiltrations, which partially disappear under specific treatment; at other times the eczema almost vanishes and the case is a plain tuberculo-squamous syphiloderm. This patient has been seen and treated by several of the most prominent dermatologists during the past few years; the diagnosis has always been plain eczema, save in one instance where syphilis was suspected, but not decided upon. The difficulties of diagnosis and of treatment in these cases were very great.

M. B. PAROUNAGIAN, M. D., *Secretary.*

MANHATTAN DERMATOLOGICAL SOCIETY.

57th Regular Meeting, February 1st, 1907.

Dr. EDWARD PISKO, President.

Case for Diagnosis. By Dr. LUDWIG WEISS.

T. R., female. aged 41 years, married 19 years, has had 6 children, 3 of whom are living. Of the dead children, one succumbed to convulsions, another to pneumonia, and the third was stillborn at term. Two miscarriages, 3 and $3\frac{1}{2}$ years ago, at $3\frac{1}{2}$ and $4\frac{1}{2}$ months respectively. Her youngest child is now two years old; and it was at the sixth month of this gestation that she first noticed an eruption of small red pimples on her face, which gradually increased in number, broke down, and ulcerated, leaving deeply depressed scars. This eruption is still present. Forehead and left side of the face alone involved; there are not now, nor, according to the patient's story, any other lesions of the remains of them anywhere else on the body. There are about a dozen deep, circular cicatrices on the forehead; in the region of the left upper eyelid and the bridge of the nose are a number of ulcerated lesions.

The case was regarded by most of the members as a tubercular syphiloderm, with which the exhibitor concurred. Dr. BLEIMAN, who had had the case under observation, called attention to the fact that the lesions got well without anti-luetic treatment, and from this fact, and their location and course, was inclined to regard them as acne necrotica; Dr. ABRAHAMS concurred.

Favus Corporis. By Dr. B. F. OCHS.

Eva L., aged 10 years, typical favus capitis of long standing. On the chest, directly over the sternum, are a group of well-marked favus scutellæ.

Dr. KINCH had seen a similar lesion preserved under a watch glass for some weeks, for the purpose of observing its growth. Dr. OULMANN advocated X-ray epilation, from which he had had very good results in favus of the scalp; on the non-hairy body, of course, it was readily curable. Dr. GOTTHEIL advocated hospital treatment for all these cases; they were not curable under the ordinary out-patient service conditions; both this patient and a brother similarly affected would be admitted to Lebanon Hospital. There was no reason to fear spread of the contagion to other children there, if the heads were kept properly bandaged and ordinary precautions were taken. If they were recalcitrant to the necessary epilation, he had the patients etherised, and the entire affected area epilated at once. This same measure had done him good service in many cases of extensive ringworm and folliculitis of the beard.

Psoriasis of the Nails. By Dr. R. ABRAHAMS.

M. K., male, aged 55 years, psoriasis of the body since 15, and of the scalp since 10 years. Five years ago the nails of the left hand became affected, and to a lesser degree those of the toes of both feet. At the present time the nails of the right hand, strange to say, are free from disease whilst those of the left hand and toes are markedly affected.

They are brittle and broken down, and some of them show a stratified appearance.

Dr. OBERNDORFER: As is often the case in these affections, the diagnosis here could hardly have been made but for the presence of psoriasis of the general integument. He had had a case in which the condition of the nails was precisely similar to the one here shown, and in which there was no psoriasis of the body: no fungus was found in the nail scrapings, and the diagnosis necessarily remained in doubt. In this case the affection seemed to be a chronic inflammatory process of the nail bed.

Dr. GOTTHEIL: Because a patient has psoriasis, every nail affection is not necessarily of the same nature. The fact that one hand is entirely free would militate against that diagnosis. He regarded the nail affection as a chronic onychia, not psoriatic.

Dr. ABRAHAM: I admit that the diagnosis has been made purely from the fact of the existence of the general psoriasis; the nail lesions do not look characteristic of the disease.

Pseudo-leukaemia Cutis. By Dr. L. OULMANN.

Ph. G., aged 29 years. Father died of apoplexy, only brother of erysipelas; mother living and well. No luetic history; patient is married, and has two healthy children. Patient was strong and well until 18 months ago, when he had an attack of spitting of blood, which recurred again two months later. Since that time his sputum is always blackish. (Examination has shown no bacilli.) Has lost about 40 pounds during the last year. No cough, but sweats much, especially at night. Sixteen months ago a swelling appeared in the neck, the clinical diagnosis at the hospital being tuberculosis, changed after microscopic examination to syphilis. Shortly after the operation the tumors reappeared at the site of the excision, and later new ones appeared in the neck, and also in the axillæ and the groins. Two weeks ago he came to the clinic for the first time. Besides the condition of the glands above-mentioned, there was marked general emaciation, atrophy of the fatty and muscular tissues, constant headache, and pain in the left hypochondrium. Heart was normal, spleen enlarged.

The blood examination showed 85% hæmaglobin, 20,000 white and 5,500,000 red corpuscles, polynuclears 29%, small lymphocytes 8%, large lymphocytes 10%, eosinophiles 2%, mast cells 1%.

The skin changes were as follows: There was constant itching, and a general condition of the integument of the chest and extremities of an apparently eczematous character. In the midst of the eczematous areas are small white nodules. They leave, however, well-pigmented scars, which are especially noticeable on the upper arms.

Dr. R. W. TAYLOR: I do not think that the leukæmia has any connection with the skin disease, which I regard as a papular eczema. I have seen leukæmia with ichthyosis, passed as a case of Hodgkin's disease, and also leukæmia with prurigo-Hebra. I believe that all these cases are really tubercular. The skin lesions in these cases was an accidental complication, and no essential part of the disease. This is, in my opinion, the case here.

Dr. GOTTHEIL: Papular eczema, not leukæmia cutis as ordinarily described.

Leukoplakia Linguae. By Dr. I. P. OBERNDORFER.

E. S., aged 41 years, married, whisky salesman. First seen October 22, 1906, complaining that for 10 or 12 years his tongue has smarted when he took anything hot or sharp in his mouth. A physician whom he consulted painted the tongue with nitrate of silver, and advised the use of the solid stick. This the patient has used for years, very frequently, often daily, and he thinks with benefit. For a while he has taken drops (probably K. I.).

When first seen, the tongue, as far back as it was visible, was covered with a thick, dull white coating, interspersed with irregularly round, red, slightly depressed, granular areas. The lateral borders of the tongue were similarly but not so severely affected. On the right half of the organ, about halfway back, there was an abrupt, tumor-like elevation, one-half inch in diameter, about one-third inch high, flat-topped, and with a shallow central depression. The mass is hard, and very sensitive. The under surface of the tongue, and the mucosæ of the lips, cheeks, hard and soft palate, and pharynx, were unaffected. No enlargement of the submaxillary and sublingual glands. Patient's general health excellent; no dyspepsia; is a heavy smoker; denies chancre and syphilis. The diagnosis was severe, advanced leukoplakia and the treatment mild alkaline mouth washes, restriction in the use of tobacco, avoidance of condiments, etc. The teeth were to be put in good condition, being covered with tartar deposits. In addition to this the upper surface of the tongue was to be painted once daily with a 5% chromic acid solution.

November 16th. Some subjective improvement; tongue looked a little better, the tumor was still very sensitive and painful. Patient asked to be allowed to apply the solid stick, claiming that a similar, though not so severe, condition had existed before, and had always been cured in this way. Permission given, and chromic acid strength increased to 7½%.

December 8th. No improvement whatever. Ten minims of 10% suspension of Hg. salicylate injected into the gluteal muscles, and chromic acid continued.

December 22nd. Swelling decidedly flatter; while tongue looked better; injection repeated.

December 29th. Lump smaller and softer, but pain as bad as ever. Third injection.

January 5, 1907. A deep, long, open fissure has appeared on the tumor, extending fully an inch backwards and inwards, together with several shorter and smaller fissures. This seemed very threatening, as showing a tendency to inward growth of the epithelium, and the probable development of a neoplasm in the near future, if such was not already present. Fissures treated with silver nitrate. Fourth injection.

January 10th. Consultation; in consultant's opinion epitheliomatous degeneration had already set in; K. I. in increasing doses advised, intra-

muscular injections to be stopped, and the X-ray used. Three X-ray sessions by consultant, a medium hard tube at 10 inches, with full strength of the static machine, being used. K. I. run up to 30 grains t. d.

January 24th. Upper lip somewhat swollen, hyperæmic and painful. X-ray stopped; K. I., 25 grains t. d. continued.

January 28th. Incessant severe pain in upper lip, most of the surface of which is raw, and covered with islets of lymph; denuded areas on tongue. Evidently an X-ray burn had occurred. An orthoform 5% cocaine, 2% salve prescribed for lip, and orthoform powder and a 4% cocaine solution for the tongue. Relief from medication very temporary. At the present time is using a strong betaeucaine lactate solution locally, A microscopic examination has been made, and the report is carcinoma.

Dr. KINCH: The severe and persistent pain leads him to diagnose epithelioma.

Dr. WEISS: The tongue lesions are too widespread for epithelioma; inclined to call it psoriasis linguæ or leukoplakia.

Dr. OULMANN: Ten years' duration, good general health, and the absence of glands is against epithelioma.

Dr. TAYLOR: The pathological findings seem decisive; in his experience when the pain sets in early in these cases the prognosis is dubious; extirpation should be thought of.

Dr. GOTTHEIL: Diagnosis, interstitial syphilitic glossitis with an X-ray burn. Does not consider that either of the antileptic remedies have been given in anything like sufficient doses for decision. Microscopic diagnosis was by no means infallible, especially in tongue lesions.

Dr. OBERNDORFER: The case is presented as one of leukoplakia with threatened epithelioma; this latter will surely supervene if it is not already present. The case is also shown to demonstrate the possible bad effects of the X-ray, even in skilled hands and cautiously applied.

M. B. PAROUNAGIAN, M. D., *Secretary*.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

DISEASES OF THE HAIR AND NAILS.

By FRANK CROZER KNOWLES, M. D., Philadelphia.

Universal Alopecia Areata Combined with Mycosis Fungoides, A Case of, S. GIOVANNI, (*Arch. f. Derm. u. Syph.*, 1906, 78, p. 3).

Giovanni records this case in an interesting article with complete histo-pathological findings. The alopecia started in this girl at thirteen years of age, following one week after a severe attack of influenza. The hair fell rapidly from the scalp, axillæ, pubes, eyebrows, and eyelashes, in the order named. Six months after this universal alopecia the first eczematous premycotic lesion appeared. The lesions of mycosis fungoides were most marked on the upper thorax. The histological changes were markedly similar in these two diseases. A cellular infiltration was noted around the hair follicles and the cutaneous glands, with hypertrophy and relaxation of the bundles of annular fibres joining the hair follicles, in the areas chiefly affected by the total alopecia. The cell infiltration in the sites occupied by the premycotic lesions was more abundant and stretched into the upper portion of the skin. It was impossible to determine whether this infiltration followed the alopecia universalis or the mycosis fungoides. This case ended fatally, at twenty-three years of age, from an intercurrent tuberculosis of the lungs.

Alopecia Areata Neurotica, A Case of. DAVID M. GREIG. (*Scot. Med. and Surg. Jour.*, 1906, 19, p. 541).

Under this heading Greig describes a case of this condition in a coachman, forty-nine years of age. There is a history of insanity in several members of his family. The patient has had several attacks of this character, the first occurring at nineteen years. This alopecia areata affects the beard as well as the scalp. Premonitory symptoms of generalized itching, indigestion, loss of appetite, vesical irritation, pain and tenderness of the scalp and forehead, and somnambulism precedes each attack.

Ringed Hairs Associated with Diffuse Alopecia, A Case of. T. COLCOTT FOX. (*Brit. Jour. of Derm.*, 1906, p. 321).

The author records this interesting condition in a married woman,

twenty-five years of age. The patient had suffered from several attacks of diffuse alopecia affecting chiefly the scalp, but also the eyebrows and the eyelashes. The few dark brown hairs remaining on the scalp during these attacks were dusty in appearance and on close examination were found to be ringed. Dark and pale zones alternated throughout the entire length of the hairs, forming these rings. The patient complained of marked daily headache. The nails were not involved. No other member of her family had this anomaly. The banded characteristic only occurred as a prelude to these attacks thus differing, although markedly resembling monilethrix.

Ringed Hairs Following X-ray Treatment. H. G. ADAMSON. (*Brit. Journ. of Derm.*, 1906, p. 404).

A microscopic specimen of a hair which had been X-rayed for ringworm was exhibited before the October, 1906, meeting of the London Dermatological Society. The hair after depilation by one long exposure (Sabouraud method) was noted to be dull and dusty-looking. On close inspection the hair was found to be ringed in alternate white, opaque, golden, and translucent rings.

Leptous Alopecia. HALLOPEAU AND GRANCHAMP. (*Ann. d. Derm. et de Syph.*, 1906, p. 375).

This unusual case was exhibited before the French Society of Dermatology and Syphilis, April, 1906. The patient was a sufferer from a mixed type of leprosy, tubercular lesions were chiefly noted on the face and limbs. The extremities were anæsthetic. There was a sudden loss of hair four days previous to this meeting. The hair fell from multiple foci on the scalp, several bald areas were noted, chiefly on the right side. There was a general alopecia of the scalp, eyebrows, eyelashes, and the beard, resembling markedly that seen in syphilis. The axillary and pubic hairs were intact. Stress is laid on the associated alopecia and alopecia areata as diagnostic characteristics in this case.

Leptous Alopecia. HALLOPEAU. (*Ann. d. Derm. et de Syph.*, 1906, p. 579).

Hallopeau presented another patient with this interesting condition before the June, 1906, meeting of the French Society of Dermatology and Syphilis. He had previously exhibited this case at the meeting in March, at that time an alopecia, serpiginous in character, was present affecting chiefly the temporal-parietal regions. Some bald areas were also noted on the scalp. The hair at the present time has almost completely returned and the anæsthesia is improved.

X-Rayd Hairs, A Note on Certain Appearances of. A. W. WILLIAMS. (*Brit. Jour. of Derm.*, 1906, p. 63).

The author records in this short article the nutritional changes in the hairs caused by exposure to the X-rays. In one long exposure

depilation is so rapid that the hair changes are less marked, less tailing occurring, than in those exposed repeatedly for a lesser time, or at a greater distance. His experiments would tend to show that interference with the trophic function of the papilla may be a cause of moniliform hairs.

Tinea Tropica Unguium. GEORGE PERNET. (*Brit. Journ. of Derm.*, 1906, p. 288).

Mr. Pernet showed the culture from this case before the Dermatological Society of London, July, 1906. The trichophyton megalosporon endothrix was the fungus demonstrated as causal in this patient. The diseased condition of the nails had lasted for six years. The index, middle, and little fingers of the right hand were chiefly involved. All the finger nails, however, presented numerous white striæ. The toe nails were crumbling, and only a small portion of each remained. A brother had a like condition.

Koilonychia. GRAHAM LITTLE. (*Brit. Journ. of Derm.*, 1906, p. 290).

This case, of spoon-nails, was exhibited before the Dermatological Society of Great Britain and Ireland, June, 1906. The thumb and index finger nails on each hand were thickened and hollowed out. The other finger nails, as also the toe nails, were thickened. The nails were brittle and lusterless, with some striation.

Rare Diseases of the Nails. JULIUS HELLER. (*Derm. Zeitschr.*, 1906, p. 613).

Dr. Heller describes his cases of nail disease under two general headings, lupus erythematosus and tropho-neuroses. Two interesting cases of erythematous lupus, from Rille's clinic, are first recorded, and then one of his own. These cases occurred at sixteen, fourteen, and seventeen years, respectively. This first case involved not only the nails but the general surface, and the hard and soft palate. The second case was noted on the face, ears, hands, and the nails. The third case affected the cheeks, hands and the nails. The nails in these cases were lusterless, yellowish, and covered with dirty yellow, horny, very adherent scales. At the edge of the nails pitting, white lines, and irregularly placed furrows were found. The nails of the feet were also involved. Under the tropho-neurotic causes, he describes a case of nail involvement following one week after a severe injury to the head. All the finger nails were involved, excepting the nail of the fifth finger of the left hand. There was a large increase of the horny deposit in the nail. Furrows and brittleness were also noted. The free edge of the nails was broken and thinned. The nails were involved synchronously.

DISEASES OF THE SEBACEOUS AND SWEAT GLANDS.

By Hermann G. KLOTZ, M. D., New York.

Fat Secretion of the Skin, What do we know of the Composition and of the Formation of. C. SIEBERT. (*Arch. f. Derm. u. Syph.*, 1906, Vol. 82, p. 371.)

Siebert reviews the chemical and microscopical work which has been done by various authors in regard to the anatomical and physiological processes which take place in the formation of the fatty secretions of the skin. Examinations of the secretions of the anal gland of birds (Roehmann), of lanolin (Darmstaeder and Lifschuetz, Siebert), and of human fat: cerumen, smegma, contents of sebaceous cysts, dermoids and atheromas (Leiser), have shown that all these substances contain but very little glycerin, and really do not belong to the group of the fats (glycerin esters of the fat acids), but to the group of the waxes (combinations of alcohols of higher moleculation with the fat acids, principally stearinic and palmitinic acid). Besides some other substances of similar nature are found in all these secretions which have been named pennacerin, lanocerin and dermocerin. The frequent occurrence of wax in plants and in animal life is pointed out. Cholesterin was found in varying but always small quantities in all these secretions, apparently in proportion to the presence of epidermis cells. It seems probable, therefore, that the fatty secretions of the skin are really composed of the real secretion of the sebaceous glands and of the products of the superficial layers of the epidermis. The relations between cholesterin and eleidin and keratohyalin have not been sufficiently demonstrated so far.

Plato and Roehmann, also Buschke and Frankel (see this journal Vol. xxiii, 1905, p. 450), have demonstrated, that the formation of the product of the sebaceous glands is a regular act of secretion, not the product of fatty degeneration of the epithelial cells. They were able to show the presence of sesam oil in the secretion after ingestion of the oil with the food. Marg. Stern has studied the microscopical changes in the glands.

Little is actually known about the pathological fat production. Leiser has studied seborrhoea sicca and oleosa. In the latter he found the secretion richer in free fatty acids, particularly in oleinic acid; in seborrhoea sicca, owing to the admixture of copious epidermis cells, cholesterin is found in larger quantities. Leiser is inclined to consider seborrhoea oleosa as an anomaly of the function of the gland, in consequence of which the oleinic acid does not undergo the usual chemical changes.

Fat Secretion from Sweat Glands. LOMBARDO. (*Gior. Ital. d. mal. ven. et d. pelle.*)

The secretion of fat by the sweat gland has not been sufficiently proven; neither the embryological proof of the existence of fat in the sweat glands, nor the points of analogy with the ceruminal and axillary glands, nor the demonstration of fat by chemical and staining methods in the secreting glandular cells or in the ducts, nor the chemical proof in the sweat itself, and in the contents of cysts of the sweat glands are convincing. Positive findings have been due to errors of observation and of interpretation. On the strength of numerous examinations of sweat glands of man, of the paws of the cat, of the dog, guinea-pig, and mouse, Lombardo denies the secretion of any fat; the fatty substance which is stained by osmium is derived from the epidermis, and is principally contained in the ducts.

Intraepidermal, Subcorneous Sebaceous Glands. PASINI. (*Gior. Ital. d. Mal. Vener. et d. Pelle.*, 1906.

In a woman 20 years of age, sebaceous glands of normal structure and normal function were found on three places in the face, neck and chest between the corneous and Malpighian layers. Pasini considers this abnormal localization as congenital (naevus), particularly since in the same individual congenital changes of arrested general development were observed. The glands had developed from the inner hair sheath with which they were still partly connected.

Hydrocystoma, Experimental Production of. T. SCHIDACHI. *Arch. f. Derm.*, V. 83, 1, 1907, Jan.

Schidachi succeeded in Jadassohn's clinic in artificially producing hydrocystoma, i. e. cysts of the duct of the sweat glands by obliterating the duct in its superficial part. The experiments were made on the paw of the cat by cutting off a flap nearly parallel to the surface and suturing it again to its base. As was expected the secretory ducts of the sweat glands which had been cut, were not united again and cysts were formed which, situated in the middle and deep layers of the cutis, have a distinct connection with the ducts of sweat glands which reached them from below.

The purpose of the experiments were to confirm the findings of Jarisch and Lebet (*Ann. de Derm. et de Syph.* 1904) in cases of hydrocystoma in men; two similar observations by Schidachi and by Jadassohn are briefly reported.

"Adenoma Sebaceum Pringle." K. REITMANN. *Arch. f. Derm.*, V. 83, 177, 1907, Feb.

Reitmann reports several cases which presented the clinical features of those described by various authors under the name of Adenoma seba-

ceum, but anatomically the lesions consisted of atypical, i. e., pathological, formation of connective tissue, without any changes whatsoever in the sebaceous glands. The tumors had been formed in the papillary and subpapillary portions of the cutis; they were accompanied by changes of the blood vessels: unusually large caliber of the capillaries and increase of the nuclei in the endothelial layer, and by the disappearance of the elastic fibers. The author advises to place all these cases into the class of the Nævi and to change the name into Nævi multiplex Pringle.

Folliculitis (Sycosis) Sclerotisans. F. SAMBERGER. *Arch. f. Derm.*, p. 83, 163, 1907.

A patient, 73 years of age, presented a condition of the upper lip characterized by the formation of several fibrous tumors. The histological examination showed a pathological process, characterized by an inflammation of the most superficial strata of the cutis, mostly localized around the hair follicles, and by the formation of a peculiar tumor composed of a densely interwoven network of enormous bundles of connective tissue, which presses from the deeper portion of the cutis against the surface of the skin and causes the loss of the elastic fibers. The conditions in the case described somewhat resemble those of Kaposi's Dermatitis papillaris capillitii or of Ehrmann's Folliculitis nuchæ sclerotisans. The author comes to the conclusions: 1, that there exist certain simple or suppurative perifollicular inflammations of the skin on the basis of which in the course of time peculiar tumors develop similar to keloid; 2, that there exist cases of a simple inflammation of the skin, not suppurative nor restricted to the follicles, in which the process terminates with the development of a keloid-like tumor; 3, that these two inflammatory processes as a rule are localized in the cervical region, but are not at all restricted to it as the sole and exclusive seat of the disease.

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TWO CASES OF RAYNAUD'S DISEASE WITH OCULAR SYMPTOMS. ONE CASE COMPLICATED BY SCLERODERMA.

By GEORGE HOWARD FOX, M. D.

Clinical Assistant, Dermatological Department, College of Physicians and Surgeons; Clinical Assistant, Skin and Cancer Hospital.

IN a recent number of the *Medical Review of Reviews* I reported three cases of gangrene presenting more or less typical phenomena of Raynaud's disease. I hesitated, however, to entitle that report Raynaud's disease, as without doubt one and possibly two of the cases were examples of peripheral endarteritis. The two cases which are the subject of this report appear to me, however, to be genuine cases of the so-called Raynaud's disease, that is, cases of symmetrical gangrene due to vasomotor disturbance, and not apparently to any organic lesions. Case No. 1 was shown by Dr. Allen before the New York Dermatological Society in November, 1905, and by Dr. Gottheil before the Academy of Medicine in April, 1907. I first had the opportunity of seeing this patient at the Vanderbilt Clinic in the service of my father, Dr. George Henry Fox. Her history is as follows:

CASE 1—Feb. 10, '06; Mrs. M. J., aged 29 years, married, Russian.

Family history—Father living; mother died of appendicitis. One brother died in childhood. Three brothers and seven sisters living and healthy. There has never been any disease like the present one in her family.

Previous history—Measles, scarlatina and whooping cough in childhood. Ten years ago the patient is said to have had malaria. She remained in bed a few days, and recovered entirely in two weeks. She suffered later from a similar attack. Five years ago there was

an abscess of the right ear. Paracentesis was done and was followed by a good recovery. The patient has never to her knowledge suffered from any venereal disease. With the exception of the exanthemata of childhood, she has never noticed any cutaneous eruption. The urine has never appeared abnormally dark in color.

Menstrual history—Patient first menstruated at 14. Menses occurred twice during the first year, and three or four times during the following year. Since then her periods have been regular. They occur every 24 days, and last three to four days. Flow is moderate, pain considerable. She frequently becomes hysterical and faints just before her periods. Two years ago she had a miscarriage. Since then she has had occasional pain in the lower abdomen, and more or less continual pain in the back.

Present history—Five years ago, during the summer, the patient opened an ice cream parlor, and was in consequence compelled to constantly handle cold objects. After several months of this work she began to notice that the ring and little fingers of both hands frequently became “dead,” that is, cold, numb, and white. The attacks were at first confined to the last phalanx, but later involved the others as well. Toward the end of the following winter all the fingers of both hands began to exhibit the same attacks. Since then the disease has existed more or less continuously up to the present time. The condition is always worse in winter, especially on stormy days, and better in summer. At times during the summer months she is entirely free from attacks for a few days. While the attacks are usually brought on by the application of cold water, she has found during the past year that hot water has the same effect, though to a lesser degree. The attacks are also brought on by excitement, worry or hard physical labor. They always begin in the tips of the little fingers and spread to the hand. They occur generally in the morning, less often in the afternoon, and practically never in the evening. Their duration varies from five to thirty minutes. The entire hands become reddish or bluish and swollen when the spasms of “dead fingers” have ceased. Pain during the attack is very moderate. During cold weather the hands at best feel “heavy” and more or less stiff. The spasms are confined as a rule to the fingers, the thumbs generally escaping.

Two years ago during the winter the patient began to notice on the tips of both little fingers, small scaly spots, which were painful enough to interfere with sleep. After three or four weeks the spots would become black, the pain at the same time ceasing. After several months the black tissue would fall and leave little pits. These slight depressions are sufficiently tender to interfere with fine movements of the fingers such as sewing. Last winter a similar condition was noticed in the tips of the first and second fingers. When the tips

of the fingers first showed this condition, the pain was very severe and radiated to the shoulder.

The three middle toes of both feet frequently become white and cold. The great toes have never become white to the patient's knowledge, but in winter are the seat of more or less continuous pain, especially about the root of the nail.

During the last two winters the tips of the ears have become "dead" on exposure. The tip of the nose on a few occasions has become stiff and cold. At times the cheeks and chin become mottled with reddish and bluish areas, and at the same time are swollen and stiff.

On two occasions the patient noticed that the tip of the tongue became stiff for a short time.

Several times a year at intervals the patient has had attacks of dizziness and blurring of vision. At such times reading becomes impossible. These attacks last about an hour as a rule.

June 27, '06—Her condition is now worse than it has been during any previous summer, though of course it is not as bad as in winter. She feels nervous, suffers from nausea in the morning upon rising, and vomits occasionally after eating. Recently the attacks of "dead fingers" have included the thumbs.

Physical examination—Patient is well nourished, of a short, stout build. Marked internal strabismus of right eye. Pupils react to light and accommodation. Heart action is regular and there are no murmurs. Lungs apparently normal. There is more or less general abdominal tenderness, especially high in the epigastrium. The urine shows nothing abnormal.

The appearance of her face, hands and feet has varied greatly on different occasions on which I have seen her. On her first visit to the Vanderbilt Clinic (on a cold, stormy day) she presented a most classical picture of "dead fingers." The fingers were icy cold, numb and of a leaden, cadaverous appearance. The radial pulse on this occasion was also markedly reduced in volume. On subsequent occasions she has presented varying degrees of coldness and whiteness of the fingers. The spasms have invariably passed off after remaining a few minutes in a warm room. For this reason, repeated attempts to photograph the hands during a spasm of "dead fingers" have failed. Except upon her first visit the radial pulse has never shown any reduction in volume and has always been regular. There has been no increased arterial tension. There is no appreciable thickening of the arteries. The index fingers show a slight tapering of their distal portions, and the tips of all the fingers except the ring fingers present slightly thickened, depressed areas.

April 24, '07—During the past winter the thumbs have taken part in the paroxysms, being alternately whitish and bluish. The

ears and nose are at times cold and white, and at others bluish. During the past year she has at times had pain in the breasts, and upon examination has found the nipples to be white and bloodless.

Finally, it may be mentioned that the patient's husband is being treated at the present time for a tubercular syphilide upon his right elbow and forearm. The patient herself shows no evidence whatever of any former syphilitic infection. Examination of the patient's only child, a boy of nine years, fails to show any stigmata of hereditary syphilis.

A symptom of considerable importance that occurred in this as well as in my second case was sudden paroxysmal impairment of vision. I regret to say that it was not possible in either case to witness a spasm of the retinal vessels such as Raynaud and others have described. It was difficult to control my first patient, and I never succeeded in having an ophthalmoscopic examination made during one of her visual spasms. The second case had not exhibited any visual disturbances since she came under my observation, and an ophthalmoscopic examination kindly made for me by Dr. H. W. Wootton showed, as was expected, a normal fundus.

In a small number only of cases of Raynaud's disease have similar visual disturbances been described. In two of Raynaud's cases such symptoms occurred. In his first case the ophthalmoscope showed a distinct narrowing of the central artery of the retina. This did not coincide with the spasm of "local asphyxia" in the fingers, but appeared as they were returning to their normal color. Marked pulsation of the veins was also noted. In Raynaud's second case, the contraction of the retinal artery and the resulting obscuration of vision coincided with the onset of cyanosis in the fingers.

Local asphyxia and visual disturbances were combined in three cases reported by Calmette and quoted by Munro. In two cases there was narrowing of the papillary arteries, and in the third venous pulsation. All three patients had suffered from malaria. In Moriez's case the right fundus was pale, the vessels hardly visible and the papilla indistinctly limited. Narrowing of the retinal vessels was also observed in the unusual cases described by Weiss. In Bland's case, that of a maniac who would expose himself to cold by remaining out of bed, there were dimness of vision and inability to read. The ophthalmoscope showed the fundus to be unusually pale, the vessels blanched, and "almost indistinct." In the case recorded by Morgan there was considerable narrowing of the arteries of the retina, although not paroxysmal in character. In Stevenson's case there

were attacks of sudden complete loss of vision, not long enough, however, to admit of ophthalmoscopic examination.

Another point of interest in my first case was the involvement of so many regions, including the fingers, toes, nose, ears, cheeks, chin, tip of the tongue, and nipples.

With regard to etiology, while cold seems to have been the exciting cause of her malady, the real cause remains unknown. There is no evidence that the patient has suffered from syphilis, even though her husband at present shows a tubercular syphilide of long standing.

Therapeutic attempts have unfortunately failed to give the patient any appreciable relief. These have included electricity, anti-syphilitic treatment, nitroglycerine, etc.

My second case, whose history follows, has been for some time in my father's service at the New York Skin and Cancer Hospital.

CASE 2—March 10, '06; Mrs. S., aged 50 years, single, native of Sweden; occupation, cook.

Family history—Parents died at advanced age of unknown maladies. Four sisters living and healthy. A brother died of dropsy. One sister died in childhood from fever. No disease like present one in her family.

Previous history—Patient was always delicate as a child. At seven years of age, after having eaten some alleged poisonous berries, she was attacked with severe pains in the stomach, followed by vomiting. For about twelve years following this illness she had more or less continuous gastro-intestinal disturbance. She vomited frequently after eating, and had frequent attacks of diarrhœa.

Present history—When she was about twenty-four years old both of her hands were frost-bitten, all of the fingers being affected. They were treated by friction with snow, and in a few days returned to their normal condition. For the following ten years her fingers showed nothing abnormal with the exception of frequent painful cracks on the palmar aspect. She then began to notice attacks of "dead fingers" in the last phalanges of all the fingers. She is uncertain as to the involvement of the thumbs. During the attacks which were brought on by exposure the parts involved would become cold, white and numb, and remain so until the patient got to a warm room. The attacks were of frequent occurrence.

Twenty-four years ago the patient came to this country. Three years later "blood blisters" began to appear on the tips of the fingers and some of the toes. These would rupture and scab over. Some of these lesions developed into deep-seated "sores" upon the finger ends, exposing the bone. They were extremely painful. Re-

moval of the blackish scabs by applying a "drawing" plaster would be slowly followed by healing. The nails were frequently shed.

About ten years ago the fingers began to be stiff and the overlying skin to be drawn and tight. Three years ago the hands were exposed to the X-rays for treatment (numerous sittings). During this treatment she received a burn which confined her to bed for seven weeks and occasioned severe pain. As a result the stiffness of the fingers became worse, especially in the right hand, which now shows marked contractures.

At the same time that the tips of the fingers presented the "sores," as described above, the fingers began to show a marked tendency to become bluish or purplish on exposure to cold. From that time to the present there have not been any such marked attacks of "dead fingers" as formerly. The terminal phalanges do not become absolutely blanched and anæsthetic as they did during the first part of her illness. They now become bluish and numb on exposure to cold.

The patient does not remember that the toes ever became blanched and "dead." The toes began to become bluish and numb on exposure to cold at the same time that the "sores" appeared upon the fingers. She also noticed at this time an eruption upon the ankles, which was moist and pruritic. This eruption recurred frequently, lasting a month or so, and disappearing under treatment.

Eight years ago there was a small sore on the tip of the last phalanx of the middle toe (right foot), which was deep and painful, and which healed after a few months.

About five years ago there was a deep sore on the tip of the last phalanx of the first toe (left foot), the diameter of a pencil and extremely painful. This healed after having lasted the entire winter. The nose and ears become cold upon slight exposure.

About five years ago the patient first noticed attacks of sudden impairment of vision. During these attacks, which lasted only a few minutes, seldom more than five minutes, all objects appeared blurred, and reading became impossible. Between the attacks vision with the aid of glasses was fairly good. The attacks continued at intervals of a fortnight or oftener for a year, and then ceased. Since then she has not had any further visual disturbances.

The patient has never noticed the urine to be particularly dark in color, or at all abnormal as far as she could judge.

Since the beginning of her illness she has lost about forty pounds in weight.

Physical examination—Patient is small and poorly nourished. Heart and lungs are normal. The radial pulse is regular and of medium size. There is no apparent thickening of the artery. There is no pulsation in the ulnar arteries and none in the posterior tibials.

The moderate amount of swelling of the feet that is present might, however, easily account for the lack of pulsation in the latter vessel. The urine shows a moderate amount of bile pigment and indican. No albumen or sugar.

The left carpus forms a convexity posteriorly from side to side. The first metacarpo-phalangeal joint is partially ankylosed, and the interphalangeal joint of the thumb completely so. The last phalanx of the thumb is clubbed and presents on its palmar aspect a superficial healing ulcer. The first finger shows a slightly stiff metacarpo-phalangeal joint. The second and third phalanges are short and are ankylosed. A portion of the nail remains. The first interphalangeal joint of the second finger is somewhat stiff, the second completely ankylosed. The last phalanx is short and rounded with a rudimentary nail. The third and fourth fingers show less ankylosis and less atrophy of the last phalanges. Nails are better preserved.

The metacarpal bones of the right hand (Figs. 1 and 2) form a slight convexity posteriorly from side to side. The thumb shows stiffness of the metacarpo-phalangeal joint and marked ankylosis of the interphalangeal joint. The terminal phalanx is atrophied and clubbed. There is ankylosis of all the metacarpo-phalangeal joints of the fingers so that the latter are held in a position of flexion. The first finger can be almost fully extended. The ankylosis increases to the little finger, which can only be extended 120 degrees. Between the first and second phalanges of the first finger a very slight motion only is possible. A small nail is preserved upon the remnant of the terminal phalanx. The middle finger shows partial ankylosis in a flexed position of first interphalangeal joint, and almost complete ankylosis of the second inflexion at 30 degrees. Nail is fairly normal. Third finger shows partial ankylosis of first and second phalanges at slight flexion. The second phalanx is conical in shape, tapering almost to a point. The third phalanx is lacking. The fourth finger shows ankylosis of all the phalanges in a flexed position, with preservation of the nail.

The left foot presents a marked hallux valgus. The last phalanx of the first toe is decidedly clubbed, and presents on the plantar aspect a superficial scar. There is brownish pigmentation and slight oedema about both ankles. There is a moderate hallux valgus of the left foot. The last phalanx of the middle toe is clubbed.

The skin covering the thumb and fingers of both hands is smooth, glossy and mottled. It is tightly stretched and cannot be pinched up between the fingers. After slight exposure the hands remain cold to the touch for some time, and exhibit a mild degree of "dead fingers" in the last phalanges.

The sensation of pain is slightly lessened in the fingers. Sensations of heat and cold are practically normal. The constant and

faradic currents are felt less acutely in the fingers than in the thumbs.

The skin covering the forearms is more or less stretched and stiff. It is smooth and there are no wrinkles or folds. The skin of the forehead and chin is smooth and somewhat "tight." The face has a more or less fixed expression. The tongue cannot be fully protruded. There is general atrophy of the subcutaneous fat and of muscle. Movement in the elbows is restricted, complete extension, especially in left elbow, being impossible. There is no restriction of movement in any other joints except the fingers.

This case, in addition to exhibiting the visual phenomena above described, is interesting on account of its complication with scleroderma.

Three types of this latter affection are generally recognized. Hardy divides the disease into the (1) œdematous form; (2) scleroderma in patches and bands; and (3) scleroderma of the extremities. Thibierge speaks of generalized, progressive, and localized scleroderma. The generalized form is the œdematous variety of Hardy, where the disease begins as a more or less generalized hard œdema, this type being frequently seen in children. The localized form refers to scleroderma in patches and bands, otherwise known as *morphœa*. The progressive form is the one that attacks the extremities, and is frequently associated with Raynaud's disease. It is this latter form of scleroderma, often called *sclerodactylia*, which alone concerns us at present. The name *sclerodactylia*, as Thibierge points out, does not refer to a process solely involving the fingers, but to the type of scleroderma that begins in the fingers and later frequently involves the upper extremities, face, and portions of the trunk.

The relation between scleroderma and Raynaud's disease is the subject of an inaugural thesis by Favier. Both diseases, as pointed out by the latter, are found chiefly in the upper extremities, the toes being very rarely attacked. The fingers frequently assume a tapering form, the terminal phalanges atrophying, and may be reduced to one-third or less of their former size. The skin apparently adheres to the bones. The nails are partly destroyed, and the articulations become deformed. The skin assumes a violaceous aspect, and finally bullæ and superficial ulcerations make their appearance.

In his thesis, Favier quotes fourteen cases where scleroderma and Raynaud's disease were associated, and concludes that there is a close relationship between the two affections. They are both met with frequently in the female sex (11 out of 14 were women), chiefly in youth and adult age. Emotion seems to be an etiological factor in

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Fig. 1.



Fig. 3.

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FIG. 4.

both affections, the majority of the cases having occurred in nervous and hysterical persons. The exciting causes are further almost always cold, mental emotions, or uterine disorders, acting either singly or in combination.

The diagnosis of the two affections from other diseases is nearly always possible, though at times difficult. Favier states, however, that it is often impossible to separate one affection from the other. "One frequently calls forth the other, and if they are met with singly it is at a slightly advanced period of the malady, when the lesions have not had time to make their appearance." In speaking of a case exhibiting symptoms of both scleroderma and Raynaud's disease, Grasset says: "One can only draw the conclusion that scleroderma and local asphyxia have close affinities. The two diseases depend upon a pathological state, if not identical, at least closely related."

In his excellent monograph on Raynaud's disease, Munro writes: "Either Raynaud's disease or scleroderma may exist for an indefinite time, and either may be complicated after a time by the supervention of the other." Munro has collected 180 cases of Raynaud's disease, and of these, 13 cases, or 7.2 per cent., showed more or less marked tendency to scleroderma. All of these cases were females. While both Raynaud's disease and scleroderma affect women by preference, "the occurrence of the latter," writes Munro, "as a complication of the former appears to be relatively still more closely restricted to females." The sclerotic changes may begin about the same time as the vaso-motor symptoms, or a number of years later.

With regard to etiology, the real underlying cause in this case, as in others of its kind, is unknown. Cold can hardly be said to have acted as an exciting cause in this case. While it is true that the patient suffered from a frost bite of the fingers as a young woman, there was a lapse of ten years between this accident and the onset of Raynaud's disease. The long gastro-intestinal illness of her childhood may have been a predisposing cause of her malady.

Attention is finally called to the bony atrophy, shown in the accompanying radiographs. In the discussion of Case 1 at the meeting of the Dermatological Society quoted above, Dr. Piffard suggested that a radiograph might show changes in the nutrition of the bones. The radiograph (Fig. 4) which was made upon this suggestion shows beginning atrophy of the tips of the last phalanges. The latter as a whole do not appear to be thinner or rarified, but the tips, instead of being smooth and rounded, are rough and irregular. The radiograph of the left hand of Case 2 (Fig. 3) shows almost complete atrophy

and disappearance of the terminal phalanges. The dark shadow seen about the thumb is due to the presence of a bandage. In my article quoted at the beginning of this report, a very marked condition of bone atrophy has been depicted.

In closing, I wish to thank Dr. George M. MacKee, to whom I am indebted for the two excellent radiographs.

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DISCUSSION ON RADIOTHERAPY BY THE CHICAGO DERMATOLOGICAL SOCIETY.

INTRODUCTORY REMARKS.

By JOSEPH ZEISLER, M. D., Chicago.

THE wave of enthusiasm which a few years ago had carried the X-rays to a point where they seemed to supersede all former and well-established modes of treatment in dermatological practice, seems now to have calmed down; and we may well ask the question which is the theme of our present discussion: have the X-rays and their co-geners kept their early promises, and, also, has radiotherapy been of real and lasting benefit to scientific dermatology?

For my own part, I do not propose on this occasion to give my answer, armed with weighty statistics of my own, or with reference to the overly-rich literature. Permit me to simply present my own personal impressions in general, gained in an experience of over five years and from a fairly large material. Perhaps I may state

my attitude best by saying that while far from being enthusiastic, I am still using X-rays to a considerable extent, although more or less as an adjuvant to, and by no means to the exclusion of other well-tried methods. I have been fortunate enough to escape the many risks attending the use of the rays, and while I have met—as I am sure others have—with occasional failures, I can safely say that I have never done any serious harm, and have only once been threatened with a damage suit, which proved but a bluff of an unreasonable crank.

It would pass beyond the limits of this discussion to enter into technical details. It seems to me that every operator must gradually arrive at a technique of his own, based upon his apparatus and upon his experience. I have not gained the conviction that the photometric devices of Holzknecht and others are an essential element to an experienced operator, nor do I believe that there is a vital difference in the end, whether frequently repeated short exposures are employed, or occasional so-called full exposures. One apparent weakness of all dosimetric apparatus lies in the impossibility of gauging the individual susceptibility of various skins—a fact, formerly denied by some observers, but now universally admitted.

That the Finsen light employed for lupus vulgaris constitutes a very boon for the unfortunate sufferers from that disease, I have no hesitation in admitting. Nobody who has seen the beautiful results reached in the famous Copenhagen Institute can deny this. The results gained by X-rays for that same affection are vastly inferior to the Finsen light, and the few cases in which I have used them in this affection have shown me that it is an unreliable agent, and where it destroys the diseased cells, it leaves the skin in a rather undesirable state, showing many telangiectatic lines and spots. My results with lupus erythematosus have not been uniform. Sometimes I have had fair results; occasionally there was barely an impression made upon the disease.

The removal of superfluous hairs by the X-rays seems to have become a very *crux medicorum* and many operators have finally abandoned it. Even Kienboeck of Vienna, in a recent paper, in the last number of the *Archiv*, takes a very pessimistic view in this respect, and according to his statements it is always a serious risk to undertake this plan of treatment, as perfect results are accomplished only very rarely. I have myself treated a fairly large number, but have often refused to yield to the pleadings of my patients, except when there was a very copious, beard-like growth. My plan

in such cases was to give fairly long exposures, from fifteen to twenty-five minutes, with a medium strong light in intervals of from five to seven days, until a slight erythema would show. From three to six sittings were usually required to reach this point. The whole performance had, of course, to be repeated within a few months, and sometimes again after another similar interval, but I am able to look back to at least half a dozen successfully-treated cases, in which the growth has not returned after periods of two to three years, nor have I caused the familiar atrophy except in one case.

In a former communication I have mentioned my very satisfactory experience with sycosis. I have since that time seen very few cases of that affection, and one of them, a patient who could not submit to the ray treatment, has been cured by the old method of forceps epilation.

Of acne I have certainly now treated hundreds of cases with the rays, but I have long ago abandoned the plan of relying solely upon their action. I use them now in a very gentle manner, while continuing to lay great stress upon general hygienic and dietetic measures, employing also local surgical measures. In this way I can point to satisfactory results. That the rays are no means of preventing relapses there is no doubt. Cases have come to me after they had been treated by other X-ray operators, even for a year or two, almost discouraged and begging not to be subjected to the same form of treatment again. Many cases of my own that at one time I believed to be permanently cured, have returned within a few months with relapses. All this shows that, after all, one important effect of the rays consists, as Kaposi has pointed out years ago, in the paralyzing effect upon the superficial blood vessels, and that as soon as these regain their normal tone, the old surface condition is apt to return. Another serious drawback is the pronounced atrophy which is apt to remain after long-continued exposures.

The attitude of the profession in regard to epithelioma seems to have undergone a radical change. For some forms, as for instance, epithelioma of the lips and of the tongue, it may be considered at the present time paramount to malpractice to lose time by employing anything but thorough surgical measures. Even superficial forms of epithelioma, which without doubt yield to ray treatment alone, are apt to return, as I have often seen, and I may state without hesitation that my former plan of treatment, thorough curettement and subsequent cauterization, gives easily as good results cosmetically and as to permanence. My personal plan, therefore, has been, when-

ever practicable, to commence treatment by thorough curetting under local anæsthesia, followed by a short series of X-ray exposures.

Every dermatologist must know that psoriasis is very easily influenced by X-rays. Large patches sometimes yield to three or four exposures; but the results are never permanent, and we therefore may see in radiotherapy only one more of the many methods of temporarily benefitting such cases; though the ray treatment, on account of its elegance and cleanliness, certainly deserves a place with them, if employed safely and sanely.

In the indurated patches of lichen planus, the use of the rays seems to me to be of decided value. I should certainly be embarrassed had I to treat such cases without them. The same applies to certain cases of eczema, although I may state that in some of the more rebellious forms, appearing under the picture of palmar keratosis, they have repeatedly failed me.

To my previous observation of the successful employment of the rays for obstinate soft corns on the sole of the foot, I might add two further ones, equally successful.

It is, of course, well known that the rays have been successfully used in many other affections of the skin. Favus, for instance, seems to be a specially excellent field for them, but I have had no personal experience in this regard. Nor did I feel called upon to use them in alopecia areata, in which other methods have always well served me.

Before concluding these brief remarks, I cannot suppress one thought which has often occurred to me. I have found that a great many physicians, without any dermatological training, and with a stupendous ignorance in the differential diagnosis of skin diseases, have had the boldness to undertake the treatment of all sorts of such cases, simply because they happened to possess an X-ray apparatus and knew in a general hear-say way that X-rays were often beneficial for skin diseases. This is in many ways a deplorable fact, and it has helped to create a class of would-be dermatologists who have no right to such a title. That therein lies also a danger to the material interests of legitimate dermatologists cannot be denied.

SOME RESULTS WHICH HAVE BEEN OBTAINED IN THE EXPERIMENTAL INOCULATION OF SYPHILIS.

By C. M. WILLIAMS, M. D.

(Read before the New York Academy of Medicine, April 18, 1907.)

THE experimental investigation of the problems of syphilis was blocked for many years by the lack of a susceptible animal. Many attempts were made to find one, and occasionally a result was obtained which might be interpreted as a successful inoculation, but there was no way of proving it, and attempts at repetition and verification usually failed. It remained for Metchnikoff to furnish a secure foundation for future labor, by selecting for his experiments the anthropoid apes, as being the animals most nearly related to man, and, therefore, most likely to be susceptible to the same diseases. His first article on the subject, published in the *Annales de l'Institut Pasteur*, December, 1903, is so epoch-making that it is worth while to quote it in considerable detail.

His first experiment was made on a young female chimpanzee, in whom he inoculated by epidermic scarification on the right side of the prepuce of the clitoris some serum taken from a month-old chancre in a man whose only treatment had been local applications of hydrogen peroxide, and who showed at the time a general roseola and enlarged submaxillary glands. The small wound healed quickly without leaving any trace, and three weeks passed without incident, but on the 26th day a small transparent oval vesicle appeared, surrounded by a red zone. It soon flattened and changed to an erosion sunk in tissue that became harder from day to day. Its base was round and ochre-colored, but soon it was covered with a false membrane of a gray color and with a distinct outline. The lymphatic glands in the groin, normal before, became enlarged when the chancre appeared, especially those on the corresponding side, but were not at all tender, even under firm pressure. A month after the development of the initial lesion, several round, dry squamous papules appeared, of different sizes, and showing a peripheral red zone and a crusted center. Light scratching caused the exudation of a rosy,

slightly turbid, serum. The papules increased in number, and their resemblance to syphilitic lesions became more and more marked, and between the red zone and the central crust there developed a narrow ring of fine scales. There was a general adenopathy, and the spleen was enlarged and hard. About three months after the beginning of the experiment the monkey began to fail, and she died seventy-nine days after the appearance of the chancre, of a generalized pneumococcus infection. A second chimpanzee, inoculated from the primary lesion and from a papule of the first, developed chancres at both places, followed by adenopathy, but he died forty-five days later, without showing any secondary lesions.

Since that time, the work has been repeated, verified, and expanded, not only by Metchnikoff, but also by other investigators, notably, Neisser, Finger, Hoffmann, and their associates, so that at the present time the course of syphilis in both the higher and the lower apes is well known in its usual form, and also in many of its variations. The higher apes—that is, the chimpanzee, the orang-outang, and the gibbon—are generally more susceptible than the lower, or at least they develop a chancre more readily. They may be inoculated on any part of the skin, and almost invariably with success, whereas with the lower apes inoculation anywhere except on the eyelids, eyebrows, and genitals is very apt to fail, even on these parts it is not always successful, and the lesion produced is often less characteristic. The incubation period varies from two to nine weeks, the most common being three to four weeks, and its duration seems to depend chiefly on the virulence of the material used, and on the thoroughness of the inoculation. By the word “virulence,” in this connection, is to be understood the concentration of the virus in the tissue used—an early chancre, for instance, is much more virulent than one in process of healing, although the activity of the individual organisms is probably the same. There seems to be no specific difference in the incubation period in the different species. The initial lesion begins as a small red spot, which soon changes to a papule, rarely a vesicle, then develops a scale, and may so remain as a firm scaly papule for days or weeks, and then slowly disappear, leaving a brown stain: or else it may form a shallow ulcer with an indurated base, exactly analagous to a typical human chancre in appearance, course, and duration. So far, the different species of monkeys react in almost the same manner, but at this point they diverge, the higher apes, and especially the chimpanzee, presenting many of the symptoms of the disease

as observed in man—papules, mucous patches, palmer scaling, alopecia, pustules, etc.—while the lower apes show no generalized eruption whatever, and only occasionally a few symptoms which may be called secondary. There is one curious manifestation, however, which is worth mention. This is the appearance, some time after the healing of the chancre, of an area of redness on or near its old site, which becomes thickened and crusted, sometimes ulcerated, and finally heals, leaving a brownish pigmentation. It has been noted to occur as much as 214 days after the healing of the first ulcer, and its syphilitic nature is proven by successful inoculation.

That this disease in monkeys is really syphilis, and not an accidental infection, is proven by its close correspondence with the disease as observed in man, in all its important features: that is, the primary incubation period, the course, and the clinical and microscopical appearance of the primary sore, the hard, painless regional adenopathy, the development of an eruption after a second incubation period, the appearance of the secondary eruption, the reaction to secondary inoculation, the presence of the *spirochæta pallida*, and, finally, by the fact that the products of the simian and of the human disease, when inoculated on apes, produce practically the same results, which have never been obtained in any other way.

Aside from the common symptoms mentioned above, certain others have been observed whose interpretation is doubtful. One of Metchnikoff's chimpanzees, for instance, developed paraplegia, lasting seven weeks, and another a paralysis of the hind legs lasting over three weeks. One of Neisser's monkeys developed defective vision, an ataxic gait, and paralysis of the bladder. Another of Metchnikoff's chimpanzees (the one with paralysis) showed some of the symptoms of malignant syphilis—a very extensive papular ulcerating eruption from which he died. The ulcerated papules contained multitudes of bacteria, and another syphilitic chimpanzee in the same cage had a similar eruption, but survived. Inoculation from papules of the second case showed their specific character, but the fatal issue in the first case was very possibly due to the mixed infection. True tertiary lesions have not yet been certainly observed in apes, and, indeed, the work is still too recent and the life of the infected animals has been in general too short to favor their development. Nevertheless, Hoffmann has reported that a *macacus rhesus* who died eight months after a successful inoculation, developed a few weeks before death a cephalhæmatoma—a lesion common enough in

monkeys as a result of traumatism; at autopsy, however, his frontal bone showed several pfennig-sized spots corresponding to the picture of Virchow's specific caries sicca. Jablotny reports sclerosis of the smaller vessels and the development of strands of connective tissue in the spleen, liver, and kidneys, in the second year after infection, and also changes in the bones, leading to saddle-nose and to thickening of the skull, but his reports are not in sufficient detail to permit one to judge of their value.

The material used for these inoculations was of many kinds—chancres, satellite glands, mucous patches, papules, all proved to contain the virus, as was to be expected. Positive results were obtained eight times in twenty-four attempts to inoculate gummatous material, and in one of these eight cases, the disease was twenty-four years old. It is always the active growing border that is infectious, not the pus. The question of the infectiousness of semen is still undecided. Finger reports two successful inoculations, using the fluid expressed from the seminal vesicles by massage through the rectum. Neisser made seven and Hoffmann three unsuccessful attempts, so the problem is still open as the virus in Finger's cases may have come from a urethral mucous patch. Milk was found by Finger in the single trial made, to be non-inoculable. The nasal mucous of infants with syphilitic coryza was found infectious three times by Neisser. After inoculation with spinal fluid from a patient with a florid papular eruption, Hoffmann obtained in one case a slight but positive reaction, while a second trial, and one by Neisser, were both negative. Hoffmann succeeded also with blood, while Neisser and Finger both failed with it; inoculations with blood serum have always failed. Of the internal organs, the spleen, bone-marrow, lymphatic glands, and testes are the only ones which so far have been proven infectious, except in the case of the internal organs of congenitally syphilitic children: of these, the lung, supra-renal capsule, kidney, liver, ovary, testis, bone-marrow, and heart's blood have already been inoculated with positive result. It is noteworthy that whatever the source of the virus, the resulting primary lesion is essentially the same, provided sufficient quantity of the infecting material be used; there is no evidence of any attenuation of the virus with increasing duration of the disease in a single subject.

Whether a qualitative change can be brought about by successive inoculations of lower apes is another question, and is not yet definitely settled. Metchnikoff, starting with two monkeys sent him by Landsteiner, in which the syphilis had already passed through

seven and eight other monkeys respectively, inoculated a chimpanzee, who developed both primary and secondary syphilis, and then carried it through another series of lower apes, reaching twenty-two in all. He noticed a progressive diminution in the primary incubation period from nineteen to seven days, with an increased development of the primary lesion, but found that the later generations were not inoculable on the chimpanzee, though they contained an organism indistinguishable from the *spirochæta pallida*. He reports another observation, whose interpretation is not yet clear. One of his laboratory workers, who showed no sign of syphilis, and who declared that he had never had the disease, developed a sore on his lip, which healed, but broke down again. There was no enlargement of the glands, and Fournier declared that the lesion showed nothing suggestive of syphilis. Nevertheless, scrapings from the sore inoculated on monkeys, were followed by typical chancres containing the *spirochæta pallida*. None of the three chimpanzees developed any secondary symptoms, although two of them lived more than two months after the development of their chancres. During the six months the man was under observation, he showed no sign of syphilis. Metchnikoff was so impressed with the incident that he attempted a human inoculation with attenuated virus. He passed the disease through five monkeys of three different species, and from the last monkey he inoculated the forearm of a woman seventy-nine years of age, and also a chimpanzee and a *macacus sinicus*. Both of these monkeys developed chancres. On two of the three spots on which the woman was inoculated, there appeared in twelve days small rose-brown papules, which never ulcerated and never formed a crust. The inflammation, always slight, soon disappeared, but the papules persisted several weeks. She was under observation a year, but showed no sign of syphilis. Both of these observations are open to the same objection: the subjects may have had syphilis before, and either did not know it or denied it: this would account for the anomalous appearance and course of the lesions. So far as I have discovered, this is the only evidence for an attenuation of the virus. Neisser, indeed, believes that he has noticed an increase in virulence with passage through monkeys.

Another important problem is the question of the rapidity of the spread of the poison through the system, and two methods of solution at once suggest themselves. First, the inoculation wound was excised after varying intervals, or attempts were made to destroy the virus in the wound by various means. Neisser found that up to

six hours, and occasionally later, excision prevented the development of a chancre, but that, on the other hand, excision performed in one case eight hours, in another fourteen hours, and in a third twenty-four hours after inoculation did not stop the disease. Rubbing the site of inoculation with various antiseptics, but especially with thirty per cent. calomel ointment, at various intervals up to twenty hours usually prevented the development of a chancre, but on the other hand, rubbing with blue ointment only ten minutes after inoculation twice failed to prevent. It appears from these experiments that the virus may penetrate beyond the reach of ordinary therapeutic interference in a very short time, but that as a rule about a day is required. The result is probably very largely dependant on the depth of the inoculation, and on the opening of lymph and blood spaces by which the virus might be more quickly spread. The second method is by means of inoculation with the blood and internal organs of animals killed at varying intervals after infection. In this way the spleen has been shown to contain infectious material as early as the fifth day, and blood and bone-marrow after fourteen and fifteen days respectively. It is altogether probable that the virus is spread through the body even earlier than these figures indicate, but as yet the experiments are too few in number to settle the question.

Closely allied with this problem is that of reinfection. Inoculation during the primary incubation period is usually followed by a typical chancre, but if the experiment is tried at a later period, only a small brownish-red scaly papule appears. The older the syphilis, the less marked is the lesion caused by secondary inoculation, so that in the full secondary period it often fails altogether, and is much less conspicuous when it does appear. Inoculation in the tertiary period produces first an erythema in whose center is an infiltrated area, which develops into a lesion of the same form as those already on the patient's skin. These results have all been observed in men, and are not due to simple irritation of a syphilitic skin, because an inoculation identical in every respect, except that the virus was killed by heating to 60° C., does not lead to any such result.

Subcutaneous, intravenous, and intraperitoneal inoculations have been attempted repeatedly, but always without success.

All these investigations have concerned either human beings or apes. Recently, however, Bertarelli, Greef, Scherber, Schucho, Hoffmann, and others, have injected active syphilitic virus into the anterior chamber of rabbits' eyes. After the irritation had subsided,

the eye remained clear for a varying period, after which a lesion appeared corresponding very closely to parenchymatous keratitis as observed in man. Sometimes iritis developed also. Bertarelli and Greef both found many spirochætæ in such eyes; other observers found few or none. Bertarelli inoculated virus from such a keratitis in the eye of a second rabbit, and continued the series through five rabbits, from the last of which he inoculated a monkey, obtaining a typical chancre containing the spirochæta pallida. Very recently, Hoffmann reports that he has inoculated a rabbit's eye with human virus, and after the development of the usual keratitis, he was able with the diseased cornea to produce a chancre containing spirochætæ in a monkey. He reports also that dogs react very much as rabbits do, except that the temporary initial inflammation is much greater.

The foregoing is a very brief outline of some of the more important investigations. Already they have solved problems which had baffled inquiry for centuries, and though there are still many gaps in our knowledge of syphilis, we may confidently expect to see them filled by the continuance of the work so well begun.

CLINICAL NOTE: CHANCRE OF THE CHEEK FOLLOWING A BITE.

By JEROME KINGSBURY, M. D., New York.

THIS case was reported at the first regular meeting of the Clinical Society of the Presbyterian Hospital Dispensary, April 19th, 1907. It is one of considerable clinical interest although commonplace from a pathologic viewpoint.

The patient is a plasterer by occupation, married, 22 years of age. He is fairly well nourished and has always enjoyed good general health.

On March 16th he applied at the dispensary for treatment of an obstinate sore on his cheek. Case was assigned to one of the surgical rooms and it was through the courtesy of Dr. Roland Hazen that I first had an opportunity of examining the lesion.

The patient stated that on January 19th he became engaged in a street fight with another man and during the scuffle was bitten on the cheek. The skin was bruised but healed in about one week although the indentation from the teeth remained somewhat longer.

Nearly six weeks after the original trauma two small sores appeared at points where apparently the upper and lower teeth of his opponent had been inserted. These rapidly increased in size and a hard tumor-like mass developed.

When the man was first seen at the dispensary he presented on his left cheek a somewhat oval-shaped lesion about one and a half inches long and nearly one inch wide. This was situated on a line with, and about one inch in front of the lobe of the left ear. Two erosions each about half an inch in diameter were in the center, one above the other. Surfaces were glazed and of a dull red color. The entire mass was markedly indurated and the glands beneath the ramus of the left jaw and behind the ear were slightly enlarged.

About one week later the first signs of a roseola could be detected on the abdomen and soon a profuse and very characteristic macular eruption appeared. This was accompanied by a generalized hyperplasia of the superficial lymphatics. There has since been some hyperæmia of the throat and the patient has complained of headaches and of malaise.

At present the eruption has faded considerably but well-marked remains of the chancre still persist.

It is not known positively that there were mucous patches in the mouth of the man who is supposed to be the syphilifer, but judging from various reports it is fair to assume that there were. He was a man addicted to alcoholic intemperance and was accustomed to associate with prostitutes of a low class. One woman in particular with whom he spent much of his time, had a sore mouth and blotches on her face. Among her intimates it was commonly reported that she had "a bad dose of the pox."

From information volunteered by the victim regarding the vindictive character of his assailant it would seem by no means improbable that the bite had been inflicted with the deliberate intention of transmitting the disease. This appears all the more likely from the fact that although superior to the patient from a physical and pugilistic standpoint, he had, during the fight, made repeated attempts to use his teeth.

SOCIETY TRANSACTIONS.

THE NEW YORK DERMATOLOGICAL SOCIETY.

351st Regular Meeting, May 28, 1907.

DR. A. D. MEWBORN, President.

Case for Diagnosis. Presented by DR. FOX.

The patient is a medical man whom some of you have seen, and has consented to come before the meeting to-night as there has been a difference of opinion regarding the condition of his nose. He first came under my observation July 3, 1906, with the following history. His nose had been swollen for two years, since his nostrils were burned badly by the explosion of an alcohol lamp. Nine weeks ago he hit his nose with his thumb, and since then there had been considerable inflammation, with crusting of the nostrils and lip, and some itching. At that time there were no nodules nor ulceration. The tip of the nose was drawn in as the result of the burn, and there was a swelling on either side of the bridge like a new growth. Tip of nose, nostril, and lip eczematous. Diet and rest, was prescribed as he was nervous and sleepless.

Recently the patient lost his position in the Health Department on account of a diagnosis of congenital syphilis, and has been treated for this disease ever since. He has received 21 injections of calomel, etc., and potassium iodide off and on for six weeks, 150 grains daily. The only effect was that his sleep and digestion were ruined, and the injections produced abscesses. An expert examined a section microscopically and said it was neither carcinoma nor syphilis. There is a sycosis of the upper lip from the discharge, and an inflammatory condition of the nostrils. There is a smooth waxy infiltration on the right side of the upper lip. The uvula is drawn upward and backward; the patient says this has always been so. The nose is much smaller than it was last July.

His wife has a baby born last September, perfectly healthy. Has also a boy 10 years old. His father died at 85 and his mother at 77. No history of syphilis.

DR. FORDYCE said there were several possibilities to be considered—syphilis, tuberculosis, possibly sarcoma. He did not think a diagnosis could be made without a very thorough histological examination. In the meantime he inclined to the diagnosis of tuberculosis.

DRS. DADE and WHITEHOUSE concurred in this opinion.

DR. MORROW said that he examined the man a year ago and excluded syphilis, and saw no reason now to change his diagnosis. He did not feel entirely satisfied as to the precise nature of the trouble, but thought it was probably

tuberculous. Thorough and repeated examination had been made of various specimens, and syphilis was excluded.

Dr. Fox said that he would have an examination made with the view of determining whether it was tuberculosis. He was inclined to think a purely inflammatory condition might persist for a long time and cause the present appearance. The treatment with injections and large doses of potassium iodide had not helped the patient, although the nose had decreased in size during the past nine months. He thought that great improvement could be produced by a simple antiphlogistic treatment, if his general health continues good. There has been no ulceration except superficially, and the nasal discharge would account for this.

In reply to an inquiry from Dr. Dade, Dr. Fox said that the patient had been operated upon for occlusion of the nostrils shortly after the burn which had produced a large amount of deformity of the nose.

Case for Diagnosis. Presented by DR. WINFIELD.

The patient was a man 48 years of age; native of the United States; he was an only child, there was no family nor personal history of syphilis or tuberculosis. Three years ago, after a prolonged exposure of his arm to the sun and air a bright red papular eruption appeared on the flexor side of the forearm and elbow. He supposed this was prickly heat; at no time was the eruption vesicular; a few weeks later similar spots appeared on his right leg, followed in a short time by a similar one on the left leg. A year later patches appeared over the loin and buttocks; the largest spot is about six inches in diameter. Over the sites mentioned above there was a brownish-red eruption consisting of small papules, many of them topped with horny spiculæ; there were no scales, nor has there ever been any; the itching is slight or inconsequent, the only sensation the patient complains of is a slight burning, especially when he is overheated; the patient is of a highstrung nervous temperament. The eruption has improved under strong salicylic acid ointment.

Dr. WHITEHOUSE said that the case had been so changed by treatment that its true features were somewhat masked, but Dr. Winfield had spoken of the character of the lesions before treatment, as being distinctly a keratosis of absolute symmetry. He thought he had observed a tendency to points forming on the backs of the fingers, and the character of the lesions impressed him as belonging to pityriasis rubra pilaris. This disease occurs in very healthy individuals—in fact, few of the cases that he had seen have been in any but well nourished subjects, at the beginning. The symmetry and many things connected with the case seemed to point to that disease.

Dr. DADE, Dr. SHERWELL and Dr. MEWBORN thought that it was lichen scrofulosorum.

Dr. Fox said that the fact that the eruption had followed a burn and that the papules looked yellowish instead of red had suggested lichen scrofulosorum to him, but that he had hesitated at that diagnosis. He did not believe it to be lichen ruber, or pityriasis rubra pilaris, as some prefer to call it. The patch over the sacrum, and the two patches in the popliteal space, suggest lichen ruber; but there is no tendency for it to become scaly, and there were no bands such as Hutchinson describes. The first six or eight cases of lichen ruber that he had seen were undoubtedly one and the same disease, and had no relation to

lichen planus, but one case was a little different from the others, and turned out to be psorospermiosis. Dr. Robinson had taken sections from this patient and studied them, as a basis for an article on lichen ruber. He suggested that an examination of the present case be made with the diagnosis of psorospermiosis in view.

DR. WINFIELD said that the three diseases he had thought of in this connection had been lichen pilaris, pityriasis rubra pilaris, and psorospermiosis. It had never scaled, did not itch, and had been slow in its growth. He had looked up everything he could find upon this subject, and after going over the case carefully had about decided that it was a case of psorospermiosis. He intended to have a specimen examined histologically.

Case for Diagnosis. Presented by Dr. Fox.

Ruth K., 16 years, old. Schoolgirl. Both parents and one sister living, and all have good heads of hair. At birth she had a growth of hair upon the scalp. At 2 months she suffered from an oozing pruritic eruption of the face and scalp which lasted until she was nine months old and then disappeared, leaving the scalp absolutely bald. The eyebrows also fell. This condition persisted until she was 4 years old, when an abundant growth of hair appeared upon the scalp. The hair, however, was coarse and wiry, and the scalp very dry. There have never been any yellowish crusts on scalp at any time since infancy.

One year ago a patch appeared on the left parietal region; and five months ago another appeared on the right parietal region. About two months ago the patch on the right frontal region appeared. There are no lanugo hairs on extremities or trunk. Axillæ and pubes present a few dark hairs. Some broken hairs have been examined for spores, with negative results.

DR. WHITEHOUSE said that until he had succeeded in getting the history of the case he had been unable to arrive at any definite conclusion other than some nutritive disturbance causing an alopecia involving various parts of the body. The history, however, brought out some facts which might point to its being due to an hereditary syphilis—dystrophy—a general bad nutritive condition following that. The mother stated that her first two children were twins, one of whom died at nine years of age of convulsions; this child who died suffered from a somewhat similar trouble. This girl is the third child, and since then there have been two others; she has now four living children, but between this girl and the last two children there were several miscarriages. This history suggests hereditary syphilis, although the girl's teeth are perfectly good; it is not impossible for hereditary syphilis to produce such a condition.

DR. MORROW agreed with the diagnosis of alopecia. The process manifests itself also in the brows and lashes, and portions of the general surface were entirely denuded of hair. The condition of the scalp was evidently an expression of the same constitutional trouble, the precise nature of which was indeterminate.

DR. JACKSON said that he had seen the girl when a little child and had watched the condition. It seemed to him simply a dystrophic condition of the hair. He did not think it was syphilitic. It is well known that many of these curious conditions of the hair seem to run in families and appear in generation after generation.

DR. MEWBORN said that some of the stubs of hair seemed to be very brittle

and would break off on rubbing the scalp. The fact that the same condition appeared in the eyebrows and lashes would seem to exclude anything parasitic. He would like to see the case examined very carefully for some sort of fungus growth.

DR. MEWBORN said that he had seen alopecia following ringworm, which would spread and become a typical alopecia decalvans. There must be some growth in the hair which makes it friable and brittle. These stumps in alopecia areata are more like exclamation points.

DR. JACKSON suggested that some parasite might account for the absence of hair.

DR. KLOTZ said that the stumps were present also in alopecia areata.

DR. FOX said that he too had seen alopecia areata after ringworm, and would have a very careful examination made for any parasitic element, although he did not believe the condition was parasitic in its nature. He was inclined to consider it a neurotic condition. Years ago he had called it dystrophia pilorum, and did not feel that he could make a better diagnosis at the present time. There is no atrophy. The hairs are large, wiry, and coarse, such as appear after an attack of favus. The girl is evidently neurotic in character. He was inclined to agree with the suggestion that hereditary syphilis might be a cause of the condition. The history given by the mother was that a miscarriage followed this girl, and then a boy now four years of age, and perfectly healthy. The fact of miscarriages might or might not indicate a syphilitic origin. It is possible, but could not be said to be positive.

A Case of Parapsoriasis. Presented by DR. FORDYCE.

A woman, æt. 26, native of Poland, presented generalized slightly scaling patches over the trunk and extremities. The scaling was not pronounced, while the edges of the lesions were ill defined and disappeared gradually in the surrounding skin. The affection had lasted for 6 years and began as disseminated red desquamating patches over the trunk. She gave no history of seborrhœa of the scalp. There was little or no pruritus. The scale production was too slight for a psoriasis, while its long duration, without scalp lesions, as well as absence of pruritus were against seborrhœic dermatitis. A diagnosis of Erythrodermie pityriasique en plaques disséminées had been made.

DR. WINFIELD said that a patient had recently come to him for treatment whom he had treated ten years previously. The case was identical with this one. The patient was a great, strong, healthy woman. He had looked up her previous history which showed that she had a typical case of psoriasis. He would call this a straight plain case of psoriasis.

DR. FOX said that a peculiar feature of the case was the disappearance of the eruption every morning, and the occurrence every day for such a long period of time.

DR. PIFFARD objected to the term "Para" as applied to various diseases.

Carcinoma of the Nose. Presented by DR. FORDYCE.

The patient, an elderly woman, had been presented to the Society once or twice previously. She had had a primary carcinoma on the bridge of her nose, and afterwards a metastasis at the angle of the jaw. Some lymph nodes were removed but a recurrence took place and a second

operation was performed when a portion of the maxillary bone was removed. She had had prolonged X-ray treatment for the metastasis, but it had had no effect.

Carcinoma of the Breast with a Lenticular Carcinoma of the Skin. Presented by DR. FORDYCE.

The patient was a woman 28 years old, the mother of 5 children. She had had a tumor of the right breast with a retracted nipple for 5 or 6 years, which condition she stated followed the birth of her first child. When shown she had a hard infiltration involving a considerable part of the organ and numerous lenticular brownish-red nodules in the skin covering the breast. She had been under observation only a short time and said that the skin lesions had been present for about two months.

DR. MORROW said that he regarded the case as cancer en cuirasse in the initial stage. He thought it would later develop the more characteristic features of that condition. It is undoubtedly malignant in its nature, and its tendency will be to spread over the shoulder, and around the chest.

DR. WINFIELD said that he had a similar case which began just like this one. It was first seen eight months ago and is undoubtedly cancer en cuirasse, extending over the arms and down the back. The patient was only twenty-six years of age.

Patient with Lesion of the Lip. Presented by DR. FOX.

This patient had been sent up from the clinic. She was a Russian Jewess, 22 years of age, and this lesion had existed for four months. There was no glandular enlargement, no trouble in the mouth or throat. It began as a little black head, which she irritated by picking at it.

DR. JACKSON thought it a syphilide.

DR. FORDYCE called it lupus vulgaris.

DR. MEWBORN said that the woman gave a suspicious history of miscarriages. The location was a favorite one for late syphilis, and he was inclined to consider it a late syphilide.

DR. MORROW suggested the use of mercurial plaster on the lesion. At first he had thought it a late syphilide, and questioned her very carefully and found a history of one or more miscarriages. She was very positive in asserting that at no time had there been any eruption on the body; the skin was perfectly clear, and there was no eruption in the throat, or other symptom of syphilis, so he was inclined to exclude that diagnosis. Still, she might have been mistaken.

DR. SHERWELL said that the lesion on the outside on the skin at and below the angle of the mouth did not resemble the typical manifestations of syphilis so common at the commissure and inside the mouth, and therefore he did not look upon it as a specific trouble.

DR. FOX said that the history was of no value except to confirm the diagnosis. The slight fissures of the corner of the mouth in this case do not always indicate syphilis. The reason for thinking it is not syphilis would be the absence of infiltration of the skin and of the "fleshy lump" that Tilbury Fox used to describe as characteristic. It is not the condition that we would expect to find in a syphilitic nodule occurring on the lip.

Case for Diagnosis. Presented by Dr. Fox.

This condition has existed for two to three months. It formed first behind the ear. It looked grayish and scaly when it first appeared, and itched considerably.

Dr. WHITEHOUSE said that while the case looked like hypertrophic lichen planus it seemed to show the general characters of a hyperkeratosis. There were several black keratoses on the wrists, and the lesions which had developed behind the ear are distinctly keratotic. He thought it an exaggerated type of senile keratosis.

Dr. Winfield, Dr. Bronson, Dr. Taylor, and Dr. Jackson agreed with the diagnosis of senile keratosis.

Circinate Syphilide of the Face. Presented by Dr. FORDYCE.

The patient was a colored woman aged 25. The eruption was present on the face and neck, but had previously been on the body. It consisted as shown in the photograph of slightly elevated circles and semi-circles as well as gyrate lesions, which presented a very striking appearance when first seen. Her infection dated back four months and began with an initial lesion on the lower lip. When brought before the Society only a pigmentation remained showing where the lesions had existed.

Dr. Fox said that he had seen the case for the first time to-night. It might be syphilitic. Certainly it was not the ordinary lupus vulgaris such as we see on the cheek or face. It might be tuberculosis of the skin, or a simple granuloma.

CHICAGO DERMATOLOGICAL SOCIETY.

Meeting of February 22, 1907.

Dr. FRANK H. MONTGOMERY, Chairman.

A Case of Pityriasis Rubra Pilaris, in which the recent lesions were indistinguishable from those of Lichen Planus. Presented by Dr. FRANK H. MONTGOMERY.

The man was a farmer, forty-three years old; in good general health. His skin disease began in 1903. Since then it has been better and worse but has never entirely disappeared. It is worse in warm weather. The skin is always dry. There is considerable itching and burning in summer, or following a sudden change in the weather, but at present neither burning or itching are pronounced. The face and neck now show a condition typical of pityriasis rubra pilaris, the skin being reddened, and covered with fine adherent scales, with a few clear areas, and some out-lying, fine, conical papules. The peculiar atrophic conditions common in this disorder are seen about the angles of the mouth and of the eyes. The ears are reddened and covered with a fine, closely adherent scale. The scalp shows a similar condition. The trunk is largely covered with areas of redness and scaling, but on the borders of these areas are seen typical lichen planus papules, both isolated and in groups characteristic

of lichen planus. The posterior surfaces of the upper and fore-arms, and thighs show a marked keratosis pilaris. On the anterior surfaces of the fore-arms are fine, acuminate papules, situated at the mouths of the follicles. The dorsal surface of the fingers show slightly the black keratotic points seen in pityriasis rubra pilaris.

Case of Healed Lupus Erythematosus. Presented by DR. L. E. SCHMIDT.

Mrs. M., aged 45 years. She first came under observation about four years ago. Her face was invaded with lesions characteristic of lupus erythematosus, which presented the butterfly appearance; both ears were also involved. On account of the extent of the disease and of her inability to receive treatment regularly, the X-rays were applied for a period of over two years. The last treatment given to her was almost two years ago. At present only the outline of the former eruption can be seen; the scar is clean, smooth, white, and shiny, with only here and there signs of telangiectasis.

Case of X-Ray Burn. Presented by DR. L. E. SCHMIDT.

———Male, aged 49 years. Several years ago patient fell 30 feet, following which he complained of pain at border of the ribs. A diagnosis of broken ribs was made and he was advised to have an X-ray picture taken.

The first exposure, in May, 1906, lasted ten minutes; the second, six weeks later, consisted of three exposures, 2—3 minutes each, with intervals of two minutes; the third, one week later, comprised two exposures, each 2—3 minutes, two minutes apart; fourth exposure, three days later, was for two minutes. This last one was given although the skin was red and patient complained of marked burning sensations.

One week later a severe dermatitis set in; later distinct ulceration developed. The lesion now is of the size of two palms of hand, irregular in outline, surrounded with a deep-red inflammatory zone. The burn has persisted since the beginning, (July, 1906), has improved but slightly, and has been accompanied with great pain, causing loss of sleep, restlessness, and inability to return to his vocation.

Case of Acanthosis Nigricans. Presented by DR. W. A. PUSEY.

Patient was an old man in fairly good physical condition, who gave no history of carcinoma, but who had been a worker for many years in a glass factory where he was exposed to high temperature. The pigmentation and the hyperkeratosis were moderately developed in the usual location, including the mouth.

Case for Diagnosis. Presented by DR. LUCIUS PARDEE.

The patient, an English woman, thirty-five years of age, gives a history of perfect health since childhood. She is married and has two healthy children. Her family history is negative. The present trouble

began fifteen years ago and was first noticed during the ocean trip when she was coming to America, where she has since lived. It has never wholly disappeared but is somewhat less troublesome in cold weather, becoming worse in Summer. The eruption consists of slightly raised erythematous plaques, of a dull red color, irregularly shaped, with ill-defined borders. They are located on the forehead and sides of the face in front of the ears. At times these present an eczematoïd appearance but no oozing or crusting has ever been seen. No subjective symptoms were complained of other than a feeling of tension. One or two similar patches have appeared from time to time on the fore-arms, but have disappeared spontaneously. There have also been occasional eruptions on the arms and neck of an entirely different character, the lesions suggesting those of erythema multiforme of the maculopapule type, both in shape and color. They were, however, non-symmetrical. These lesions have been acute in onset and have disappeared spontaneously without treatment and caused no annoyance.

Morphoea and Facial Hemiatrophy. Presented by DR. ORMSBY.

The patient, a woman aged 28 years, had suffered with the disorder for eight years. The first change noted by her was a feeling of tightness of the skin over one malar prominence. This spread and atrophic changes followed. At present, evidences of the sclerodermatous process still exist at the margins. The center which involves a large part of one cheek and half of the nose is marked atrophic and scar-like. Much telangiectasia is present; some of which is evidently due to radiotherapy employed in treatment of the case some six years ago.

Case of Lichen Planus. Presented by DR. L. E. SCHMIDT.

———Mechanical engineer, aged 30. For the past four months patient had noticed an eruption on the flexor surface of the left fore-arm. At present, there is to be seen a lesion, circinate in shape, about the size of a 25-cent piece made up of an aggregation of pin-head-sized papules, irregularly rounded, slightly elevated, and of dark red color. A similar patch is found on the right knee. The areas are firm to the touch, not painful, and not pruritic. The rest of the body and the mucous membranes are free from involvement. These were the only lesions the patient had ever observed; there was no venereal history. A diagnosis of circinate lichen planus was made.

Case of Lupus Erythematosus. Presented by DR. W. A. QUINN.

The patient was a man fifty-one years of age, weight 210 pounds, intemperate. About two years ago he noticed a small red patch on right cheek attended with some itching and scaling, for which he used various remedies. At present, there are several areas of involvement on the face but none are to be found on the mucous membranes or on the scalp. The lesions are very superficial and no scars have developed.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Medico-Chirurgical Hospital, Tuesday evening, May 21, 1907, at 8:30 o'clock. DR. M. B. HARTZELL, presiding.

A case resembling Raynaud's disease was exhibited by Dr. Stelwagon. The patient was a man aged twenty-five years and of a neurotic temperament. The fingers, dorsal surface of the hands, the toes, flexure surface of the feet and ankles, the tip of the nose and of the ears were the sites involved. The skin was dry, wrinkled, superficially fissured, and rough. The extremities were cold and red. Itching and burning were prominently present. The nails were furrowed, pitted, and very brittle. This condition had been present during the last three winters, being much improved during the summer months. Several of the members remarked the resemblance to X-ray dermatitis.

An interesting case of morphoea was presented by Dr. Schamberg. This condition was of two years' duration, starting on the girl at the age of ten. Two patches were noted, the one, silver-dollar in size, on the sole of the right foot, the other linear, two inches wide and eight inches long, situated on the inner surface of the right thigh. These areas were pure white, board like in infiltration, and surrounded by a violaceous zone. This case was particularly interesting because of the zosteriform distribution.

A case of dermatitis herpetiformis was shown by Dr. Hartzell. The eruption had started six months previously, in this patient of twenty years. The man stated that it originally began on the extremities. The eruption was papulo-vesicular in type, and was chiefly on the outer side and flexure surfaces of the arms and the legs, the axillæ, and the lower portion of the face and neck. Itching was a marked characteristic. The resemblance of this eruption to that occurring in scabies was marked.

A case of dermatitis herpetiformis, previously exhibited, was again presented by Dr. Stelwagon. The patient was a man aged forty-eight and had suffered from this condition for five years. The eruption was papulo-vesicular in type and generalized in distribution. Itching had been a marked symptom. Brownish pigmentation was noted on the chest, probably from the prolonged use of arsenic.

A case of epithelioma was shown by Dr. Bernardy, by courtesy of Dr. Stelwagon. The lesion started three years previously, at the age of thirty-nine. The man was well nourished and apparently in excellent condition. On the dorsal surface of the left hand there was a fungating, silver dollar sized, sharply marginate, raised, papillomatous tumor; red-

dish in color and with a slight yellowish discharge. The lesion had improved markedly under the local application of pyrogallol.

A case of lichen planus annularis was exhibited by Dr. Stelwagon. This patient, a male of forty-four years, had noticed the eruption for four months. The lesions were distributed only on the lower limbs. Violaceous, slightly raised patches were noted, formed by the confluence of irregularly shaped, shiny papules. There was a tendency for some of these papules to become hypertrophic and to form rings. Some of the patches were slightly scaly. Pigmentation was markedly present. The patient complained of severe itching.

A case of epithelioma, previously exhibited, was presented by Dr. Pfahler. When the man was originally shown to the society several diagnoses were suggested. The microscopic examination has however proven the diagnosis of epithelioma to be correct. The lesions in this case consisted of six, silver-dollar to palm-sized, raised, sharply marginate, rough, papillomatous, cauliflower-like tumors. These nodular swellings were situated on the anterior, external, and internal aspects of both lower legs; chiefly in the neighborhood of the external malleoli. The duration of this condition had been six months. The patient physically was in excellent condition, although sixty-six years of age.

A microphotograph of the bacillus anthracis was exhibited by Dr. Schamberg. The case was one of those occurring at the Municipal Hospital. The bacilli were very plentiful in this patient. The microphotograph showed the bacilli of anthrax situated in the kidney. Dr. Schamberg also referred to another case of anthrax, occurring in the same hospital, in which Dr. E. B. Holmes recovered the bacillus anthracis from the blood of a living subject.

FRANK CROZER KNOWLES, M. D., Reporter.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON DERMATOLOGY

Stated Meeting held May 7, 1907.

DR. A. R. ROBINSON in the Chair.

A Case of Acute General Lichen Planus. Presented by DR. DAISY M. ORLEMAN-ROBINSON.

The patient is a male, 23 months of age. He had measles at the age of nine months and was treated during the past summer for intestinal disorder. The baby was nursed by its mother and was weaned when fourteen months old. The parents are in good health and there is no history of any cutaneous disease.

This eruption is of about three months' duration. It was first observed on the chest and abdomen. The lesions were described as being pin-point in size and they gradually spread over the legs, then over the arms, and, finally, on the face (three or four weeks ago). The lesions were then said to have increased in size, becoming redder in color. Itching has accompanied the eruption.

The eruption now covers the entire body with the exception of scalp, ears, forehead, nose, lips and chin, and portions of the toes and fingers. There is a seborrhœal condition of the scalp.

The lichen planus lesions are exceedingly numerous, literally covering the parts affected, with no difference apparently between the flexor and extensor surfaces, and they show a decided tendency to grouping of three or more lesions or in lines. The lesions on the palms and soles are not so numerous.

The smallest lesions are pin-point in size or small pin-head sized, sharply limited, somewhat elevated with a flattish, shining surface, many showing a little follicular opening or a depression. There is a large number of still smaller lesions that are very slightly or not at all elevated and present in a manner the appearance of dilated duct orifices with a whitish ring around the orifice.

The larger and older lesions are of a large pin-head size, sharply limited, elevated, redder in color, and have either a shining surface with or without a central depression, or are covered more or less with partly detached scales.

In many of these older lesions, the central portion shows quite a collection of these scales giving an appearance as if the lesions were somewhat acuminate. This acuminate condition with scales at the apex is encountered only in older lesions and is not a primary condition, consequently this case cannot be regarded as a combination of lichen ruber planus and lichen acuminatus.

Erythema Multiforme, Involving the Buccal and Rectal Mucous Membrane. Presented by DR. CLARK.

The patient is an Austrian by birth, twenty years of age. He gives no history of venereal disease. Six months ago he had an exactly similar eruption in his mouth and on the hands, arms, penis and scrotum. Previous to the present outbreak he was suffering from constipation and headaches, and then, twelve days ago, red blotches first appeared on the backs of the fingers, and soon also on the backs of the wrists, on the forearms, face, and penis. Ten days ago blisters began to form on the inner sides of the lips and cheeks, and broke, leaving red ulcerated patches. Seven days ago there were on the backs of both hands, fingers, and forearms, raised circumscribed erythematous patches, some of which showed a tendency to fade away in the center, and had the characteristic fawn color. Near each external condyle were tense blisters the size of a large pea, on an erythematous base. On the face, scrotum and penis

were several raw denuded areas surrounded by dead macerated epidermis (which had apparently formed the sac of a pustule before it had ruptured) on an erythematous base. The mucous membranes of the lips and cheeks showed macerated patches, others that looked like mucous patches, and circumscribed denuded areas with a red areola surrounding them. Along the edges of the tongue were several spots resembling mucous patches very closely indeed. The whole buccal mucous membrane was congested and the mouth was very sore. There was also a mucous patch on a protruding internal hæmorrhoid. The patient has improved considerably in the past week on cathartics, and alkaline and antiseptic mixtures, many lesions having disappeared leaving only stains, and his mouth feeling quite comfortable.

A Case of Syphilis of the Tubercular Form Limited to Region of the Ear.

Presented by DR. DAISY ORLEMAN-ROBINSON.

The patient's father was born in Germany and died at the age of fifty-three from strangulation of the intestine. The mother was born in Germany and is in fair health. There were fourteen children in the family, of whom ten survive, one, a twin to patient, having died in infancy. The living children consist of the patient, two sisters and seven boys. All are said to be in good health. The patient, age thirty years, was born in Germany and lived there nineteen years, then came to the United States. She was married at the age of twenty-one, and her husband was killed by an accident two months later. From this marriage one child was born, and is healthy. She was married a second time, one and one-half years ago, and has one child from this marriage, healthy. The patient states that she has at no time been ill or had any cutaneous eruption. About one and one-half years ago, or longer, a lesion, hemp-seed in size, formed in the concha of the left ear, which was opened, but increased gradually in size, undergoing ulceration, and was covered with a thick crust.

An outlying infiltration developed and patient sought medical advice two months later. The ulcer was then burned and scraped at intervals, and, eventually, the entire ear became swollen and painful and patient was placed in a hospital where various forms of treatment were applied.

All of the inner surface of the external ear now shows an atrophic condition, the result of a destructive process throughout its whole extent, healing with a scar tissue formation.

The upper part of the helix shows an active process constituted by the formation of several more or less isolated lesions, pea-sized, acutely inflammatory, covered with thick crusts. At the uppermost portion of the affected helix the covering of the inflamed part is hard, firm, corneous, and beneath this cover the tissue is vascular and easily bleeds, and shows no deep, rapid ulceration process.

Toward the lower part of the helix there is an active, destructive

process—as shown by the thick crusts and destructive tissue, with active inflammatory symptoms.

Anterior to the tragus the skin has been destroyed and the area is occupied by rather smooth scar tissue, traversed by some blood vessels. The margin of this scar is sharply limited by normal tissue.

There is a lesion anterior to the upper part of the external ear which is large, pea-sized, rather sharply limited, elevated, brownish-red in color, the central part of which is covered with a thin honey-like crust unlike that seen in an ulcerative condition. The margin passes gradually into healthy tissue in a sloping manner—that is, the limit of the lesion is not abruptly elevated—the most elevated part corresponding to the center of the lesion. Removal of the crust leaves a granular base, quite superficial, with slight sero-purulent contents, and bleeds easily.

At the lower part of the large scar area is a lesion similar to that just described, but showing retrograde changes, the lesion apparently disappearing without ulceration.

Anterior to the lobe of the ear is an oval-shaped lesion, one inch in length and three-fourths of an inch in width sharply limited, the peripheral portion corresponding in character with the lesion described, except that it is more sharply limited and more elevated, and has a more marked inflammatory process at the margin. The greater portion of the central part shows an ulcerative condition with sloping edges and base somewhat reddish and covered with thick, slightly hæmorrhagic crusts. Removal of the crust shows the base covered with a sero-purulent material with apparently considerable rapid necrosis of the tissue, and the crust is firmly adherent. This lesion commenced as a deep tubercle a few weeks ago, and later became ulcerative and presents the characters of an ulcerating gumma.

I present this case on account of its location and a certain resemblance to a tuberculo-lupus. The absence of all absorption lesions outside of the large scar area or any recent tuberculous lesions in the scar area, the rather rapid course of the disease, and the age of the patient, are sufficient grounds to exclude lupus and to regard the disease as syphilis.

Syphilis. Presented by DR. POLLITZER.

The patient is a single woman about 23 years old, a native of Hungary. The disease began in early childhood and formerly affected the left foot near the ankle. She shows at present flat or depressed, irregular, partly-pigmented scars on the left hand and forearm, and the hand deeply scarred, contracted, and distorted, as a result of former lesions, so as to have lost much of its usefulness. Some of the smaller scars appear to be the centers of depressed areas of considerable extent. These scars represent former defects in the epidermis, from which, as

from a fistulous opening, large amounts of gummatous material, sterile on culture, and negative on examination for organisms, could be pressed. A photograph shows the condition of the hands before treatment, greatly enlarged fingers, with papillomatous frambœsioidal excrescences, ulcerations, and crusted lesions on the hand and forearm. An X-ray picture showed the bones unchanged. Under energetic antisyphilitic treatment, injections of salicylate of mercury, the patient was cured, though, of course, the damage done by the destructive subcutaneous gummata could not be repaired, and the injury to nerves and vessels may serve to explain the occasional, probably trophic, ulcer that develops on a knuckle.

Leucoplakia Buccalis in a Negro. Presented by DR. HOWARD FOX.

The patient is 52 years old and married. He gives no history of syphilis. Until within three months he has been an inveterate pipe smoker, and he has taken liquor in small amounts for many years. His mouth has always been very sensitive to highly-seasoned food. He has suffered a great deal from toothache, and his teeth are now badly decayed. He thinks the patches inside his mouth have existed about five or six years. Last fall there was a cold sore on the lip which extended for a distance inside the mouth. He now shows a pigmented band on the inside of the right cheek, running back along the inside of the line of the teeth. Near the oral commissure is an irregular whitish thickened patch of epidermis, marginate and raised, which looks as if it were peeling, but is firmly adherent. On the left side the condition is similar, but slightly more marked. Anteriorly the epidermis has peeled off, leaving a pinkish surface, continuous with a rough granulating patch on the lower lip—possibly an epithelioma. Below this on the vermilion border there is a verrucous condition, and one small excrescence like a cutaneous horn.

Symmetrical Gangrene, closely associated with Syphilis. Presented by DR. HOWARD FOX.

The patient is 30 years old, married, an electrician. About seven years ago he contracted a hard genital sore, which was followed by a general eruption. His physician pronounced his case to be undoubtedly syphilis. The patient discontinued treatment at the end of two weeks. About two years ago all the toes of the left foot except the fourth became gangrenous and were amputated. Two months later part of the great and second toes of the right foot also became gangrenous. Later the patient suffered from attacks of "dead fingers" confined to the first and second fingers of the right hand and the third and fourth fingers of the left. About fifteen months ago the right pupil suddenly became iridoplegic, failing to respond to light or to accommodation. The case was shown by Dr. George Henry Fox before the New York Dermatological Society on January 23, 1906, and in the discussion there was

a division of opinion as to whether the case should be regarded as syphilitic endarteritis of the peripheral vessels, or Raynaud's Disease. The former view now seems more probable, for the following reasons: there is a history of syphilitic infection, subsequent infection of the patient's wife, hereditary taint in a child, excruciating pain, unilateral iridoplegia, and almost complete recovery under antisyphilitic treatment. The case is fully reported in the *Medical Review of Reviews*, May, 1907.

MANHATTAN DERMATOLOGICAL SOCIETY.

58th Regular Meeting, March 1, 1907.

Dr. A. BLEIMAN, Chairman, pro tem.

Disseminated Tuberculosis of the Bones and Skin. By Dr. WM. S. GOTTHEIL.

Lilian L., youngest of four children aged respectively 2, 4, 6, and 9 years, and all well. Father living and healthy; mother died one year ago of tuberculosis pulmonum.

Patient in good health until last winter, when, being in a babies' home, she developed a greenish vulvar discharge for which she was sent to the Post-Graduate Hospital. Whilst there a swelling of the middle finger of the right hand occurred, which was diagnosticated as a tubercular dactylitis, and treated with the X-ray, but without effect. The finger was amputated. She was discharged from the hospital in September of last year and taken to the country. Then the amputation scar on the hand began to swell up and become tender. Other swellings appeared in various localities, which were taken for abscesses and opened. In each case cicatrization was abnormal; the scars became hypertrophic, purplish, and tender, and in some of them openings have remained from which there is still discharge. In addition to this, independent lesions have appeared on the skin, without involvement of the deeper parts or pus formation, and looking very like the incision scars above mentioned. During the last few weeks the right great toe has become swollen and tender; an abscess has developed there, opening spontaneously, which is still discharging pus.

Status præsens, January 16, 1907. Well-developed and properly nourished child; lungs free, functions normal; slightly anæmic. There are five scar lesions on the skin, all of them elongated, purplish masses of tissue, elevated and moderately tender to the touch. One, $1\frac{1}{2}$ inches long by $\frac{1}{2}$ broad, is over the lower third of the shaft of the right tibia, adherent to the bone, and with two small openings discharging a sero-purulent fluid. On the outer surface of the left foot is a similar lesion, but without openings. On the outer surface of the back of the right hand

is another elongated scar lesion, in the middle of which is a small, sharply defined, circular ulceration with a ragged and dirty base. There are two other hypertrophic lesions on the right arm and the left forearm respectively. As far as can be ascertained, all these lesions are on the sites of "abscesses" that have been opened or have ruptured spontaneously. No connection of the sinuses in the leg lesion and the bone beneath can be demonstrated. The dermal lesions all present the appearance of tuberculosis verrucosa, and I take them to be cutaneous tubercles secondary to a similar infection of the deeper structures.

On the left buttock, near its lower fold, is an irregular, elongated patch composed of a row of purplish, indurated nodules, some of which, on close examination, show a distinct tendency to break down and ulcerate. There has been no abscess formation or incision here. The middle finger of the right hand is absent, and the amputation scar is purplish, elevated, hypertrophic, and tender, like the incision scars in the other places.

The chief active lesion, however, is in the right great toe. The entire digit is enlarged and inflamed; the skin over it is tumified and purplish; there are no distinct nodular foci, but the entire condition resembles a lupus pernio. On the outer surface of the inflamed member is a small, circular, crateriform ulceration, from which there is a thin, purulent discharge. There is evidently an active tubercular process of the periosteum and bone.

Presented as a case of tuberculosis of the bones and skin, possibly of exogenous origin. The child is to be admitted to Lebanon Hospital; but the proper place for it is an outdoor sanitarium. In any case the prognosis is doubtful; renewed local infections and further mutilations will probably occur; and finally the internal organs, if not already involved, will be implicated in the tubercular process.

The diagnosis was generally agreed to by the members present. Dr. Ochs stated that there had been some improvement under 1/20 grain of calomel and mercurial ointment, but it had not continued. Dr. Cocks suggested the use of the half-strength iodide of lead ointment, and the creosote-salicylic plaster locally.

Lepra Tuberosa. By Dr. L. OULMANN.

Th., aged 23 years, female, Courland, father living, mother died 16 months ago of the same disease; no other sickness in large family. Was well until September, 1903, when there appeared some "bluish" patches on her left hand, insensitive and gradually growing until they became nut-sized. Later on, other patches developed on various parts of the body, beginning as small brownish or reddish nodules, and slowly increasing in size. Patient has been under treatment for 18 months; when she first came her face and extremities were covered with characteristic nodules. The treatment has consisted of X-raying the general

affected surface, and cauterising the individual tubercles with Strebel electrode on the high tension apparatus. The disease has changed almost completely as the result of persistence in this treatment. The face is now almost free from any tubercular lesions; on the backs of the hands and arms, together with characteristic masses, are numerous, deep reddish and some whitish scars. The tissue of these scars has been carefully examined and found to contain either not any or only a few degenerated bacilli. There are, however, new tubercles developing that contain the micro-organisms in very large numbers. Latterly there have developed triangular anæsthetic areas over the elbows and over the tibias.

The reporter has found that, while under the X-ray treatment the individual lesions grow a little smaller, it has no effect on the number of bacilli present, or on the appearance of new lesions. Chaulmoogra oil had no effect at all.

Raynaud's Disease Affecting the Cheeks, Lips, Nose, Ears, and Mammillae, as well as the Fingers and Feet, Hands and Forearms.

By Dr. W. S. GOTTHEIL.

Mrs. Mary J., aged 31 years. Suffered from trouble in her fingers, toes, and face for 5 years. During the last year or two the trouble has extended to the forearms and legs; the nose and the lobes of the ears have become affected; and quite recently the symptoms have appeared in both nipples. Has never suffered from frost-bite, but attributes her affection to having had her hands so much in the freezer when she sold ice cream in her candy store. It began with whiteness and "deadness" in the little fingers of both hands, accompanied by paræsthesia, tingling, itching, pain, and numbness. Gradually the other fingers became affected, and then the process spread up, and affected other parts. In summer she does not suffer so much, though her fingers are always white, and become very painful when exposed to cold water or the wind. In winter they are bluish, even in the house, becoming blackish on exposure to cold, and then dead white and intensely painful. Painful fissures occur around the nails on the slightest exposure to cold air or water in winter. In the winter of 1905-6 she was entirely incapacitated, could not sleep at night, and has cried all night with the pain at times. This last winter she has been very careful, and has not suffered so much. All the fingers and toes are cold and white, even after having been for more than half an hour in the warm atmosphere of the house; after a time, and especially near some source of heat, they become blue and hot. The cheeks are swollen, blueish, and nodular; the nose and the lobes of the ears are markedly affected. She complains of the same symptoms in the nipples, though there are no objective signs of the disease there. During the last few months the disease process has been extending on the face and limbs, so that now the entire face and half the

forearms and legs show the characteristic changes. There are no fissures at present.

The case is more extensive than the Raynauds that we usually meet with, and shows evidences of fairly rapid progression. The prognosis, in this climate especially, is distinctly bad; and removal to a warmer one is advisable, in the hope of checking the progress of the disease. She has been under varied treatment, nitro-glycerin, atropia, etc., internally and galvanism, high tension, etc., externally, but without any result.

In the discussion, Dr. Cocks said that he had found that nitrate of amyl inhalations helped these cases a great deal, though of course only temporarily.

Seborrhoea Congestiva. By DR. W. S. GOTTHEIL.

Sophie N., aged 26 years, single, Russian, claims to have had an eruption similar to the present one at 6 years, lasting one year. Present lesions began on face and genitals 6 years ago, and have resisted all treatment. Entered Lebanon Hospital February 9, 1907.

February 11th. There are vividly red and sharply limited impetiginous areas in both supraciliary regions, forming large oval patches involving most of the eyebrows, the skin of the temple above, and the upper lids. The affected skin is thickened and markedly greasy; in some places it is covered with soft, oily seborrhœal crusts. Marked marginal blepharitis and some conjunctivitis. The hair of the right brow in the area affected is entirely gone; that of the left side, the outer margin of which is outside the inflamed area, shows a little stretch of normal eyebrow. The upper lashes of both eyes are two-thirds fallen; only a few hairs are left. The mons veneris and the adjacent skin of the abdomen and thighs is occupied by a large area of inflamed skin, covering both surfaces of the labia majora, the skin of the thigh for some two inches down on both sides and the abdominal skin for an inch above the margin of the hair. This entire area is inflamed, thickened, bright yellowish red in color, and more or less covered with greasy and impetiginous scales. The margins of the patch, like those of the face, are absolutely sharp and distinct. On the skin of the abdomen and thigh outside the genital efflorescence, are a number of smaller and evidently recent lesions. They form pea- to bean-sized rounded or oval vesico-bullæ, which soon rupture and form reddened spreading patches exactly similar to the central lesion. The vaginal mucosa is reddened, and there is a marked foul discharge. There is no appreciable loss of hair on the mons.

The vaginal discharge showed the ordinary pus organisms; no gonococci. The general health and functions were normal. Microscopic examination of a small lesion on the thigh showed a fairly acute condition of inflammation, but nothing specific, and no fungi.

Besides appropriate local treatment for the conjunctivitis and the

vaginitis, sulphur-salicylic applications were used for the skin lesion. By February 17th there was some improvement, and this was marked by the 26th. She is by no means cured yet; and she states that at various times during the years that she has had this disease she has gotten a good deal better, only to relapse again. "No scar tissue has yet appeared. But the chronicity and obstinacy of the chronic inflammatory process, its sharply limited borders, its peculiarly vivid red color with a tinge of orange in it, the character of the secretion and the scales, and the loss of the hair, leads the presenter to regard the case as one of those congestive seborrhœas that lie on the boundaries of erythematous lupus, and eventually develop into that disease. The vesiculo-bullous character of the newer lesions in their beginnings is unusual; after a few days, however, they completely resembled the older ones.

Dr. OBERNDORFER was inclined to lay more stress on the complete absence of cicatricial tissue, and rather regarded the case as an aggravated seborrhœal eczema; and in this most of the members present agreed.

Erythema Indurata. By Dr. I. P. OBERNDORFER.

H. S., female, aged 22 years, single, U. S. About a year ago patient noticed several red spots on her legs, which grew slowly until some of them were as large as a finger nail. Some of them, after remaining for a long time, disappeared spontaneously; others opened and discharged. They appeared in crops, were not painful, and each lesion persisted about three months. Has been treated with an ointment and drops, composition unknown. Got much better till one month ago, when the disease returned as before; has had no treatment lately.

On the lower half of each leg, equally distributed on the outer and inner surfaces, are about a dozen lesions varying in size from a quarter to one centimeter and over. The smallest are purplish-red, smooth, flat endermic papules, which seem to enlarge slowly, become thicker on their under surfaces, and eventually form flattened elevated spheroidal nodules not sharply limited from the surrounding tissues. The oldest lesions have evidently retrogressed, and are represented by purplish-brown, pigmented areas, most of which show a slightly depressed central cicatricial area and sometimes a thin lamellar crust. None of the lesions have broken down; there has been no fluctuation or perforation; they are neither painful nor sensitive.

Patient enjoys good health, though somewhat anæmic. She had Bright's disease at 6 years, after measles, and later had scarlatina. No tuberculous family history. Her mother was under reporter's care from 1892 to 1898 for very intractable tertiary syphilitic ulceration; but the patient herself shows no stigmata. Nevertheless the patient was put upon vigorous treatment, but without result.

In the discussion most of those present were inclined to consider the lesions heredo-syphilitic of the gummatous type. The reporter had been of that opinion

at first; but not only did treatment have no effect upon them, but new ones appeared during the time. The appearance and course of the papules correspond very closely to *erythème induré* as described by Crocker.

Case for Diagnosis. By Dr. W. S. GOTTHEIL.

Mrs. Mary T., aged 43 years, was well until October 1st of last year, when, a stranger in town, she went with some acquaintances to dine in Chinatown, was overcome by liquor, and woke up in the morning in bed in a room over the restaurant. Itching of the skin began at once, and soon an eruption on the face and body appeared, and has remained present ever since. No medical treatment; some history of headaches in October and November, and of a sore throat; considerable falling of the hair this winter; no rheumatism. Symptoms, according to the history, not definite. The eruption has been pruriginous and a little scaly from the first; it began on the face and soon spread upon the body; and now, four months and more since its first appearance, it is still as bad as ever on the body, though it has left the face.

Examination, February 16, 1907. Whole body, except face, palms and soles, and lower legs, is covered with a macular, slightly fufuracious eruption, closely aggregated in places, and most abundant about the waistband and the wrists. The patches are all alike, forming pink, somewhat scaly, rounded or irregular, pea- to nut-sized efflorescences, each one of which, on close examination, is seen to be composed of an aggregation of minute individual papules. No central clearing, yellowing, or atrophy. Head now free, save for a few faint lesions on chin, temples, and scalp. Faint indications on both palms of pre-existent lesions; the same possibly on the sole. Though a stout woman, and though the lesions are abundant around the waist and one the surface of the breasts, there are no lesions at all in the folds under these organs. No visible alopecia, adenopathy or angina. No vaginal lesions. No scratch marks. No fungus in the scales.

February 28th. Eruption fading very slowly under indifferent local treatment alone; facial and palmar marks have disappeared; body lesions less pink and more scaly. No evidences of lues anywhere, save that one papule has appeared under the right breast that shows some tendency to become hypertrophic. Itching still much complained of, though no scratch lesions were evident.

Reporter inclined to the diagnosis of pityriasis rosea of unusual duration and extent; and most of the members present agreed with this. Dr. PAROUNAGIAN believed it to be a secondary luetic eruption, on account of its duration, its beginning on the face, and the early history.

Epicrisis, April, 1907: Patient reappeared with a violent right iritis; no other symptoms of syphilis; eruption little changed, and as itchy as ever; prompt subsidence of the eye symptoms under luetic treatment, atropine, etc. Later appeared a typical, grouped, papular eruption of the shoulders and back. Final diagnosis, pityriasis rosea and secondary syphilis, both of which finally yielded to appropriate treatment.

Idiopathic Pruritus of Ten Years' Duration, Cured by Radiotherapy.

By Dr. L. OULMANN.

M. L., male, aged 30 years. Personal and family history good, save that his mother died of diabetes. For 10 years has suffered from itching of the skin, varying in intensity, and sometimes so severe that he has been unable to sleep at all. Chest and back chiefly affected. There have never been any lesions, urticarial, eczematous, etc., other than those occasioned by his finger nails. Has been under treatment most of the ten years without relief. Three years ago was under the care of a well-known dermatologist, who diagnosed the affection as prurigo. At that time the patient first noticed a pigmentation of the neck, chest, and back.

First seen three weeks ago. Marked pigmentation as above, numerous scratch marks on the trunk, and a considerable number of small, very superficial, cicatricial markings, evidently at the sites of older and deeper excoriations. No general adenopathy; no artificial urticaria. No indican, albumin, or sugar in the urine. Menthol was employed locally and atropin internally, and the patient's back alone was rayed. After the third treatment there was no itching of the back at all, though the patient was still tearing his chest and limbs. He had had 10 sessions so far, and the itching has stopped in all the areas treated. It is of course impossible to say anything yet as to the completeness or permanence of the cure.

M. B. PAROUNAGIAN, Secretary.

BOOK REVIEWS.
Verhandlungen der deutschen dermatologischen Gesellschaft.

Report by the Secretary, PROF. DR. J. JADASSOHN, Berlin, 1907.

We have before us the report of the work done at the 9th meeting of the German Dermatological Association, held at Bern, September 12 to 14, 1906. It appears in two parts.

The first part contains the papers on the etiology and general pathology of syphilis, and the discussions on them. Neisser contributes a paper on Experimental Investigations of Syphilis; Hoffmann, one on the Etiology of Syphilis, and Finger, one on Studies in Immunization in Syphilis. There are also papers by Metschnikoff, Volk, von Neissen, Herxheimer, Doutrelepont, Spitzer, Scherber, Blashko, Ehrmann, Nobl, Stein, Grouven, Winkler, and Zabolotny upon kindred themes. Neisser's paper takes up 108 pages of text, and is furnished with more than five pages of references. This part is furnished with seven half-tone plates.

The second part contains reports of a large number of cases, many of which were shown. There are also papers by Dind of Lausanne, on the virtues of coal tar; by Jadassohn on the abortive form of epidermatolysis bullosa; by His of Basel, on an epidemic of ringworm in his home city; by Heidingsfeld of Cincinnati on the histology of paraffin prothesis; by Rona of Budapest on spirochete in the tissues of noma, nosokomial gangrene, gangrenous genital ulcer, and pulmonary gangrene; by Brunner of Bern, on glycogen in normal and diseased tissues; besides several papers on genito-urinary subjects. This part is also illustrated with half-tones and one colored plate.

When one looks over such a report as this he is filled with admiration of the excellence of the work done, and the wealth of clinical material shown. We show many rare cases in our society meetings, but the American temperament seems to prevent the reports of our meetings from attaining the thoroughness of our German fellow workers.

G. T. J.

The Principles and Application of Local Treatment in Diseases of the Skin.

By L. Duncan Bulkley, A. M., M. D. Rebman Company, New York.

During the Spring of 1906, Dr. Bulkley delivered four lectures at the New York Skin and Cancer Hospital upon the above topic, and this little book contains those lectures. The author makes no claim for the book as a complete treatise on the subject, and the contents of the book testifies to the truth of the modesty of the claim. But, though the book is far from being a complete treatise on the local treatment of skin diseases, it is of value as an exposition of the author's individual methods of handling many of the more common dermatoses.

The book is full of good advice. The directions as to the proper way in which to apply treatment are full and explicit, and it would do any one not versed in dermatology great good to read and practice the advice given. The author lays proper emphasis upon the importance of studying the general condition of the patient and trying to put him in the best possible physical condition before prescribing local treatment; upon learning how to use a few well tried remedies properly rather than taking up with every new remedy that appears in the medical journals as "good for" so and so; and upon the irrational stress laid upon the importance of "keeping the pores open," and bathing too much. We can not refrain from criticizing adversely the naming of a combination of carbolic acid, lanolin, boro-glycerin, and cold cream, "skin food." The term has too much a flavor of quack advertisement. We must also protest most strongly against the advice, alas! not peculiar to the author, to sew up in a pillow case a child with eczema to prevent him from scratching. The practice is cruel in the extreme. No doctor would dare to put an adult under the same conditions in a straight jacket. It is the business of the physician to allay the itching so that the child will not want to scratch. In eczema of the face this is well accomplished by the use of the mask, which the author confesses he seldom uses. We commend the book to those inexperienced in dermatology in the belief that their patients will be the gainers from the investment.

G. T. J.

The Johns Hopkins Hospital Reports, Vol. XIII. Studies in Urological Surgery.

The Johns Hopkins Hospital Reports, Vol. XIV. Studies on Hypertrophy and Cancer of the Prostate.

The contributions to medicine and surgery constituting the Johns Hopkins Hospital reports always represent the fruits of original research and these volumes maintain the high standard of predecessors.

The work is dominated by the personality of Dr. Hugh H. Young: indeed his name appears as sole author of eight out of the twenty-one contributions in the first volume; and the second volume is his throughout.

It is impossible to review these volumes adequately in the space at our disposal or to praise all that must be praised. In so much that is good there is so little with which we have to disagree that it is a briefer, though a more ungrateful, task to point out the apparent defects.

These are chiefly in the line of too great specialization: for example,—the first contribution to volume XIII, discusses a 7-glass test of urine, which is

advised in preference to the familiar 5-glass test, in order that one may distinguish between pus or shreds produced anterior to the bulbous urethra and those produced in the bulbous urethra. Such a refinement, founded as it is on the theory that in a closed tube pus and shreds do not travel up-hill and involving complications of a test already none too accurate, is of no great practical interest.

Article seven, on the use of ointments in the urethra, is an attempt to rehabilitate an ancient method of treatment which does not seem destined to the crown of popularity. The cystoscopic chart for the diagnosis of hypertrophy of the prostate, though eminently successful in the hands of Dr. Young, is not always accurate and has been known, even in the hands of an expert, to lead to grave errors of diagnosis.

Finally, we come to the 476 pages of volume XIV, devoted to a study of Dr. Young's results in removing the prostate by the extra-urethral perineal route. The complete analysis of the 145 cases operated upon forms extremely instructive reading and, justifies, we believe, the view that such an operation should not be attempted except by a surgeon who has specially trained himself to avoid its two great dangers,—laceration of the rectum and the urethra, and prolonged operation,—the very danger that most prostatectomies are devised to avoid. Under the best circumstances and at the hands of the best operators this form of procedure takes almost twice as long as do its competitors—intra-urethral prostatectomy and suprapubic prostatectomy (not to mention Chetwood's operation which is the most rapid of them all). But the inexpert surgeon is sure to take doubly long over the operation and is likely to tear both rectum and urethra far more than in the old-fashioned methods.

Thus the title, "Conservative Perineal Prostatectomy," which Dr. Young has adopted to indicate the fact that he is able to preserve the bridge of tissue containing the ejaculatory ducts, must not be taken to mean that the operation is conservative in the sense of being less grave or less dangerous than other operations to a similar end. On the contrary, in the hands of the average surgeon it is surely far more grave. Whether better results can be obtained by it than by any other method remains to be seen. At present the best that can be said is that in Dr. Young's skilled hands it ensures a speedy and comfortable convalescence in the majority of instances; while in unskilled hands it invites trauma and delay, endangering the patient's life. Its conservation of the ejaculatory ducts is a feature the importance of which has yet to be verified. Many other forms of prostatectomy avoid them quite as effectively as does this operation.

In short we deem it a grave fault—not that this operation should be performed by the specialist, but that it should be placed before the public with the misleading title, "Conservative."

A word of praise must be added for the contributions on the tubercle bacillus in urine, chronic prostatitis, cure of rectal fistulæ and prostatic carcinoma.

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Traitement de la lepre et des Dermatoses microbiennes par des produits de la Flore Brasilienne.
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- Dr. George Howard Fox, 616 Madison Ave., City.
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- Dr. T. Tanaka, Univ. of Tokio, Tokio, Japan.
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LICHEN OBTUSUS CORNEUS—AN UNUSUAL TYPE OF LICHENIFICATION.

By CHARLES J. WHITE, M. D.

Instructor in Dermatology in Harvard University.

ON page 201 of the *Pratique Dermatologique*, Vol. 3, Brocq says that Unna gave the name of lichen ruber obtusus to one of the three great clinical forms which he recognized in lichen ruber. As a still further subdivision Brocq¹ presents the title of lichen obtusus corneus, and says that "this dermatosis, which one can also call lichen corné disséminé, is very rare. We ourselves have seen but five cases. It is formed of somewhat large globular elements from three to ten millimeters in diameter which are found principally on the upper and lower extremities. The lesions begin as papules, roundish, hemispherical, pinkish-white in color, and which are the seat of intense itching. Later these elements enlarge little by little, very slowly; as they grow they assume a brownish or rather a deep café-au-lait tint, and are covered by a central and later by a complete layer of fine, dry, greyish, very adherent scales which become stratified and later produce a cornified appearance. Almost all the papules remain discrete. There are not many lesions in any one case. The evolution of the disease is extremely slow."

"We really do not know whether this affection should be linked with lichen planus or classed among the pure névrodermites. In the last example which we have studied from the very beginning the papules bore dry scales at their summit and simulated lichenifications. We should like, therefore, to separate this class from lichen planus and range it with the cases of pruritus with consecutive lichenification. This entire question should be taken up afresh from the clinical, pathogenic and histological standpoint."

With these words, and the two photographs which accompany them, bibliographers should class the following titles: "A case of

multiple tumors of the skin accompanied by intense Pruritus," published by Hardaway² in 1880; and "Two cases of multiple Tumors of the Skin in Negroes, associated with Itching," described by Schamberg and Hirschler³ in 1905. There may be other similar instances in our literature which should be included in this small group, but where each writer chooses a separate title for an obscure condition, or where the account of the unusual dermatosis is published with no distinctive title whatever (as in the above cited instances), it is extremely difficult for the future student not to ignore the work of his predecessors.

There should be an international dermatological court, or clearing house, which should convene at sufficiently frequent intervals and take action upon the new titles published since its last meeting. These titles should be unified, if possible, and published with the previously accepted, undisputed titles as a universal dermatological "index medicus."

It is the privilege of the present writer to add to this small list another example of lichen obtusus corneus.

The patient is a widow, born sixty-three years ago, and has had no occupation save that of housewife. She has had no miscarriages and has borne one child. Her menopause occurred sixteen years ago. She considers that she has enjoyed good health, although from childhood to the cessation of menstruation she suffered from periodic attacks of "nervous headache" at the base of her skull and at the top of her head.

Fifteen years ago muscular rheumatism developed as a gripping sensation around the chest, followed by sciatica and later by general muscular involvement. That same year the patient was confined to her bed twelve weeks on account of some abdominal affection which began in the stomach and soon settled into severe pain in the region of the appendix, accompanied by vomiting whenever she turned on her side. In the following year there was another attack of muscular rheumatism.

Three years later the disease reappeared, but this time in the form of acute articular inflammation which attacked all the joints of the body below the neck. Beginning at this time and continuing up to the moment of her visit to the Massachusetts General Hospital the patient has eaten two raw lemons and one to three oranges every day.

On July 7, 1898, the woman's husband died after an illness of eight months, and throughout this long period he had been attended by his wife. Following this bereavement the patient was

much exhausted, could not sleep at night and was in a highly nervous condition.

Three weeks later the present skin eruption commenced in the form of flea-bites, which the patient now describes as flat lesions with a red central point which developed after a stinging bite. These wounds were on the ankles, itched greatly, and the patient scratched them incessantly, and from that time on the present lesions began to develop and gradually increased in number higher and higher up the legs until at the end of two years they began to appear above the knees. Four or five years ago similar itching spots were noted on the hands, and as time went on fresh lesions appeared farther and farther up the arms. It is only within a few months that any lesions have developed on the trunk. The patient is quite positive that not one of the lesions when once formed has ever disappeared.

On waking in the morning the affected areas would itch unbearably, and the only relief obtainable was in tearing off the horny coverings; but by bed time these rough tops would again be evident. The patient noticed that all the lesions had from one to three central horny plugs, and when once these were dislodged the pruritus would be quieted. Itching was limited entirely to the lesions themselves.

Such is the history given the writer in October, 1906. The patient was then photographed, given some protecting ointment, and requested to give up entirely her acid diet. It is greatly to be regretted that at that time no examination of her blood was made to ascertain its lime content and its coagulation time. The patient then disappeared and remained away all winter on account of the illness and subsequent death of her mother.

On May 1st she returned, and because of her nervous condition and great physical distress, she was admitted to the skin ward of the Massachusetts General Hospital.

The physical examination revealed nothing abnormal save a faint systolic murmur at the cardiac apex. The general health is good, although the woman scratches and tears herself constantly, frequently drawing blood. When once asleep her night's rest is undisturbed, but one or two hours are necessary to compose herself. During the day her voice and general demeanor are visibly affected by her torturing pruritus.

On May 12 the house officer, Dr. E. L. Oliver, found the following conditions in her blood and urine:

Blood: white count, 14,400; red count, 4,600,000; hæmoglobin, 90 %

Differential count of 200 leucocytes:

Polynuclears, 65%.

Large mononuclears, 30 %.

Small mononuclears, 2 %.

Eosinophiles, 2 %.

Mast cells, 1%.

Red cells appear normal in volume and color index.

Urine: sp. gr., 1018; albumen, slight trace; sugar, absent. The sediment contained a few small and large round cells, and a rare hyaline cast.

On May 15th the urine showed: color, normal; sp. gr., 1022; reaction, acid; albumen, very slight trace; sugar, absent; indican and indoxyl, diminished; urea, 2.6% ; sediment contained a few small and round cells. The daily amount varies from 28 to 32 ounces.

On May 19th Dr. R. I. Lee, assistant in the pathological laboratory of the hospital, examined the blood to determine its coagulation time and its calcium content. With Wright's coagulometer the coagulation time was two minutes and fifty seconds (average normal, one minute and forty-five seconds).⁴ The calcium content was 1:600, reckoned in terms of ammonium oxalate (normal average 1:1500).⁴

On May 20th Dr. Oliver made another examination of the blood and found 11,200 white cells and 4,500,000 red. Hæmoglobin was 90 %. The differential count showed:

Polynuclears, 76%.

Large mononuclears, 21 %.

Small mononuclears, 1 %.

Eosinophiles, 1 %.

Mast cells, 1 %.

The cutaneous eruption (Fig. 1.) consists of numerous, discrete, disseminated, reddish-brown, dry, hard, round, dome-shaped nodules. They are raised about one-fourth inch above the surface, and their tops, when undisturbed, are grey, rough and uneven. Some display horny plugs rising above the surrounding level. Others have been scratched and their tops exhibit crateriform depressions; sometimes filled with hæmorrhagic crusts. They are of fairly uniform size, averaging about one-half to three-fourths inch in diameter. The intervening skin feels normal except for a slight dryness. These lesions are mostly on the extensor surface of the arms and legs, but there are many on the flexor sides, and these are somewhat less exaggerated in all their characteristics. Within a few weeks fresh lesions have developed upon the neck and abdomen, but these do not

resemble the older nodules but simulate wheals, and rubbing of the skin produces large halos of erythema about them. The older lesions seem independent of the underlying tissues and can be pinched between the fingers and moved about, in fact, from the clinical point of view it would seem as though the upper layers of the skin, especially the horny structures, were chiefly involved.

HISTOPATHOLOGY. A piece was excised from the inner aspect of the upper right arm near the inner condyle. The wound was stitched and healed by first intention, but when seen six months later the nodule had returned but had not quite reached its former size and its previous corneous surface was not so manifest. This piece was hardened in Zenker's fluid, imbedded and cut in paraffin and stained with hæmatoxylin-eosin, eosin-methylin blue, acid orcein, and phosphotungstic acid.

EPIDERMIS. The layer as a whole, considering its venu, is distinctly acanthotic, and this hyperphasia is in marked contrast to the surrounding skin which was excised with the nodule (Figure 2). The stratum spinosum is decidedly pathological. The palisade layer is generally distinctive, but consists here and there of markedly attenuated cells whose boundaries are somewhat difficult to trace because of the evident lateral compression which has apparently squeezed the spongioplasm downward toward the corium, leaving the nuclei in close apposition above and producing below a somewhat amorphous, anuclear zone, like the feathers of a dart, as a line of demarcation between epidermis and corium (Figure 3).

The rete proper is hyperplastic and consists of irregular, broad or narrow, interpapillary plugs; while above, the surface is equally irregular, owing to the deep indentations of the horny layer. At the summit of the papillæ the rete is reduced to a comparatively few layers of much altered cells. In the interpapillary plugs the cells above the palisade layer soon show marked signs of disease. The nuclei become vesicular and occupy most of the cell room. Nuclei do not often appear, but a generalized mass of chromatin granules monopolize the nuclear space. In other nuclei vacuolization has occurred and the nucleus is flattened against its periphery as a semi-lunar mass. Again, karyokinetic figures present a final alteration of the nucleus. In these areas the cells themselves are equally altered. One seldom sees perfect pentagonal figures, but in their stead appear laterally compressed protoplasmic masses without spines and often without easily discernible boundaries.

Still higher in the rete the apparent lateral compression ceases, the cells have more room and their proper configuration is more

frequently seen. The nuclei become rounder, but many more assume a semi-lunar shape, while still others lose their characteristic structure, become amorphous and stain a pale diffuse lavender with hæmatoxylin or a robin's egg blue with central eosinophilic granule with eosin-methylin blue.

In the uppermost rete layers the cells acquire their customary, horizontally-elongated shape; but many of the nuclei disappear and the cells become small and inconspicuous. There is also a noticeable tendency toward cleavage here and in places there are long lacunæ containing an occasional fragment of a torn-off cell (Figure 3). In other areas there are lines of structureless protoplasm diffusely stained by the basic dye.

The stratum granulosum is nowhere normal, and in its place are seen oval spaces with central or peripheral, exceedingly minute granular masses, nuclei do not appear and normal cellular protoplasm is equally non-existent.

The stratum corneum is hyperplastic but otherwise normal. It is composed of layer upon layer of densely packed or reticulated cells which are free from nuclei, blood cells and bacteria. (Figure 3).

CORIUM. As has been noted above, the papillary layer is highly accentuated. The individual papillæ extend far up into the rete and are unusually wide as well. They contain vessels which are dilated and somewhat tortuous, and seldom appear as a continuous passage, but form numerous cross-cut channels with swollen vesicular endothelial cells, and with numerous perivascular cells of the mononuclear type. Distended lymph spaces also appear at the base of many papillæ, and to a lesser extent below the upper horizontal layer of vessels (Figure 3). These lymph spaces are empty and present nothing remarkable apart from their conspicuous size. The subpapillary vessels are chiefly noteworthy from the large clusters of cells which surround them. (Figure 3.) These cells form dense isolated masses obscuring the central vessels, except on higher magnification, and are composed almost exclusively of lymphocytes (?) The vessels themselves are lined with hypertrophied endothelial cells and contain a few polynuclear leucocytes, and occasional rouleaux of erythrocytes in their lumen. The deeper vessels are highly dilated and appear with normal endothelium, but surrounded by marked mononuclear extravasations.

Collagen is represented by rather swollen, somewhat granular, straight or wavy bundles distinctly separated one from another. Connective tissue nuclei are not numerous. Interstitial infiltration is absent. (Figure 3.)

Elastin is abundantly present, but somewhat less marked in the central areas of the sections where the essential lesion is most conspicuous. The individual fibrils are perhaps straighter than usual and seldom penetrate far up into the papillæ and this defect is the most noteworthy in the histology of this tissue. Elastin is well preserved in the vessels, but is somewhat meager in the sweat glands. (Figure 4.)

The adnexa of the skin, when present, are normal, although the nuclei of the sweat glands are somewhat vesicular and show an unusual amount of granulation.

During her stay in the skin ward of the Massachusetts General Hospital, the patient has been given foods which would increase the coagulability of the blood, and forbidden those which would decrease it. Her extremities have been wrapped in protective gelatin dressings, and under this combined treatment the nodules have all perceptibly diminished in height, and the horny overgrowth has somewhat disappeared. The wheal-like lesions on the neck have been liberally covered with carbolyzed zinc and lime water wash, and have resolved themselves into minute papules. The pruritus has also subsided, but returns to a limited extent when the lesions are uncovered.

Such is the history of the present case, and when it is compared with the analogues of Hardaway and of Schanberg and Hirschler, one cannot fail to recognize that these four cases represent one and the same malady. The ages and sex of the patients, their otherwise good health, the general characteristics of the tumors, including their great number, their position, their tremendous localized pruritus, especially when touched, their long duration, their return *in situ* after excision, and their general pathological features, all mark their identity one with another.

My American predecessors did not venture upon a name or an etiological foundation for their examples, but before finding Brocq's reference to his five cases, I regarded my instance as the lichenification of an urticarial skin under long-continued provocation, because the histo-pathology of the sections approached rather closely that of lichen planus hypertrophicus, and because the fresh lesions observed upon the neck were strongly suggestive of wheals on account of their central, raised papules and their large surrounding halos of erythema.

There are weak points in both of these arguments. For instance, in the pathology, one misses the dense, sharp, rectangular infiltration of the papillæ and the subpapillary stratum of true lichen

planus. On the other hand the following quotations from the *Pratique Dermatologique*,⁵ are strongly reminiscent of the anatomical lesions of the present case: "To this acanthosis there is added a most marked hyperkeratosis which increases with the evolution of the process while the acanthosis seems to diminish. Toward the center of the papule, the stratum corneum becomes very thick while the stratum spinosum shrinks. It is in this manner, according to Unna, that the horny, concentric globes are formed independently of the follicles." And again: "According to Unna, the stratum spinosum presents gradually a degeneration more or less accentuated. Where the inter-epithelial spaces are very dilated, the downward prolongations disappear and the cells become rounder, homogeneous and misty. Their nuclei end by refusing to absorb coloring reagents and are converted into homogeneous colloid masses which occupy considerable space in the center of the papule." And finally: "Civate states that 'in large sections one sees that the stratum germinativum is practically normal, nevertheless at certain points these cells are very attenuated, irregular and irregularly disposed.'"

The weak point in the theory of the urticarial origin of the process lies in the high calcium content of the blood, but we must remember that this field is not fully explored yet, while the somewhat slow coagulation time of the blood and the suggestion of wheal formation in the newest lesions produced under our observation, and the distribution of the great majority of the old lesions, form a symptom-complex strongly reminiscent of a chronic papular urticaria.

In conclusion, I wish to thank Dr. Oliver and Dr. Lee for their clinical examinations, Dr. H. P. Towle for the clear photograph of the macroscopical lesions, and Mr. L. S. Brown for the excellent photomicrographs.

Post scriptum. August 6. During the last two months definite wheals have formed while many of the older lesions have disappeared and the remainder are gradually approaching the level of the skin under the influence of chrysarobin and lactic acid. The X-rays produced no effect.

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FIG. 1.

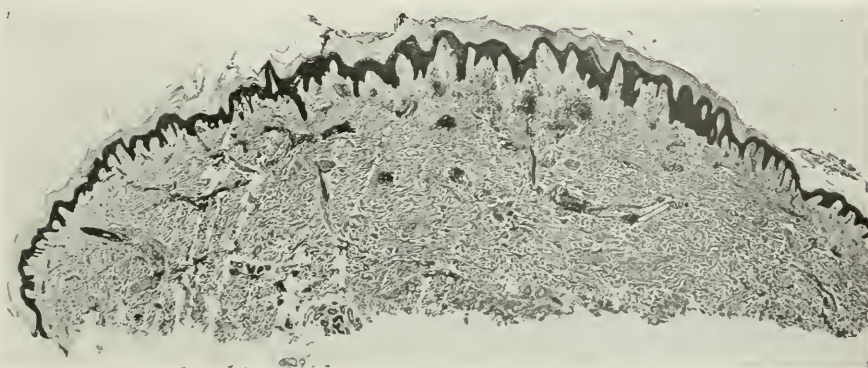


FIG. 2.

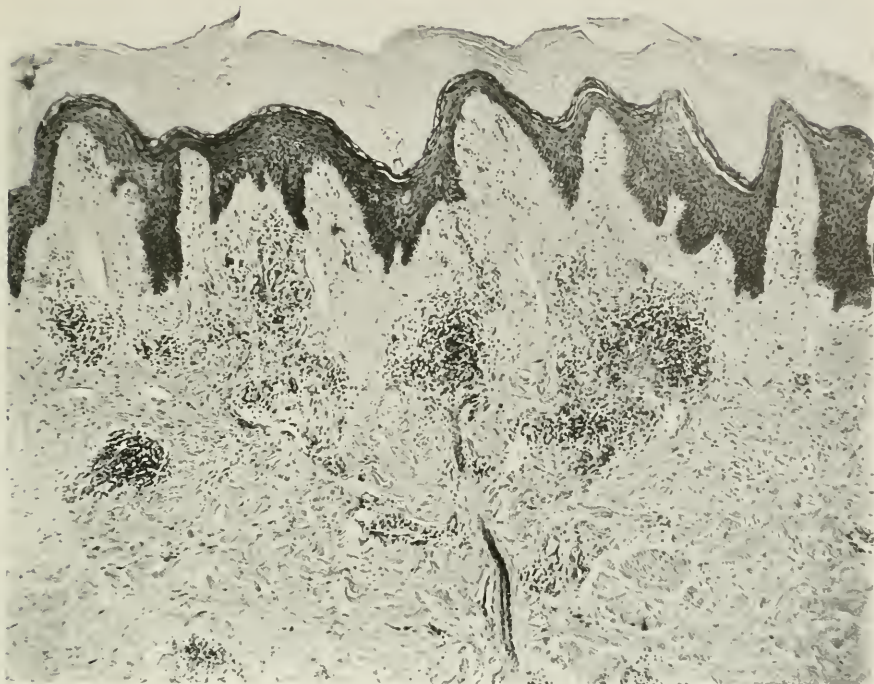


FIG. 3.

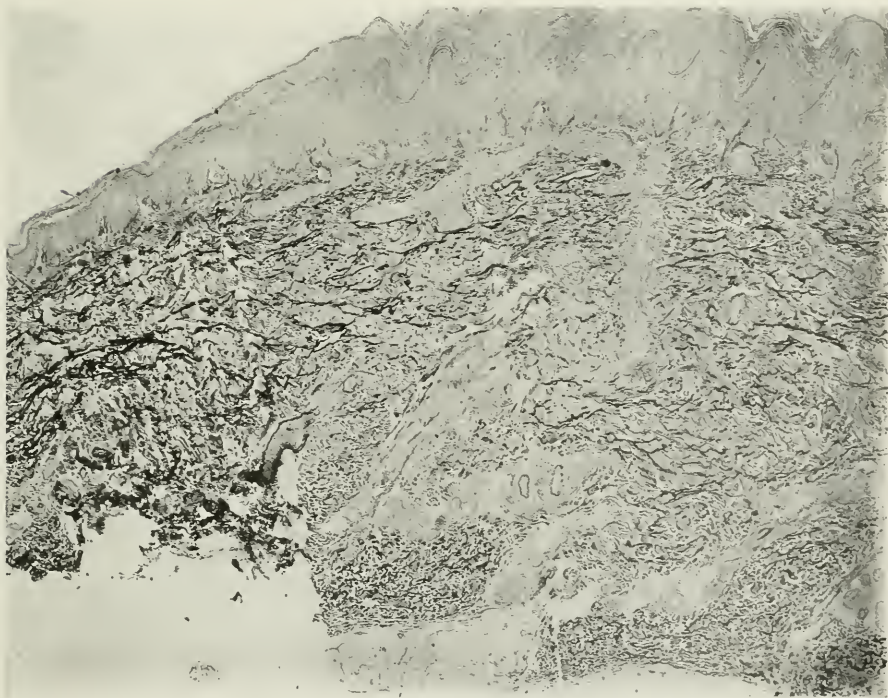


FIG. 4.

DESCRIPTION OF PLATES.

- FIG. 1. The isolated button-like nodules are well illustrated. The horny plug can be seen on the top of several of the nodules.
- FIG. 2. The essential part of the lesion can be seen in the central portion of the section. Here the horny and the spinous and the papillary layers are the thickest and the subpapillary and deeper nests of cells are most evident.
- FIG. 3. Note the great thickness of the stratum corneum with the somewhat dilated duct at the depth of the wide interpapillary depression. Note the acanthosis with the frequent lacunæ in the upper rows. Note the degenerated condition of many of the rete cells. Note the high and wide papillæ with the underlying dilated lymph spaces and tufts of small round cells surrounding the vessels.
- FIG. 4. Elastin stained with acid orcein. To the right is the lesion. Note the diminution in abundance of the elastic fibres beginning at the point where the lesion commences.

REPORT OF A CASE OF SYSTEMIC BLASTOMYCOSIS,
INCLUDING AUTOPSY AND SUCCESSFUL ANIMAL
INOCULATIONS.¹

By FRANK HUGH MONTGOMERY, M. D., Chicago.

THE patient and a preliminary report of this case were presented before the Chicago Dermatological Society, in April, 1905, at which time but four other cases of systemic blastomycosis had been reported. Since then seven other cases have been reported more or less completely, or presented before medical societies. Several other cases are now under observation in Chicago.

H. W. R. Consulted me August 9, 1904, for a peculiar and persistent ulceration of the face and neck. He was a locomotive engineer, thirty-two years of age, in fair general health, and of good habits. He was married, but had no children.

HISTORY: Aside from the usual diseases of childhood, his only illness had been, at the age of nineteen, an attack of influenza, followed by pneumonia, from which he made a complete recovery. He has had no indications of lung trouble since, and has always been in good general health until the onset of the present trouble. There is no history or other evidence of his having had syphilis.

His family history contains nothing of importance in the case;

¹ The writer takes pleasure in acknowledging his indebtedness to his associates as follows: For much valuable assistance in the laboratory work in connection with the case, to Dr. Oliver S. Ormsby; for assistance in treatment of the patient and in study of the case, to Drs. James Nevins Hyde, E. L. McEwen, Joseph Capps, and W. A. Evans, to Dr. Waugh of the Presbyterian Hospital, and to Dr. C. J. Combs of Oshkosh, Wis. Dr. Peter Bassoe kindly took charge of the autopsy and his record of the same is included in this report.

his father is living and well; his mother died from childbirth; he has had no brothers or sisters. One of his aunts died of "scrofula." There is no history of malignant disease in the family.

In 1902-03 he was running a locomotive in the South, on a section of road that ran through a swampy region. He had an attack of malaria (?) in 1902, from which he recovered. From January to April, 1903, he was unable to work, being weak and depressed, but not sick in bed. For a few weeks he had pain in both sides of his chest, later in the right side only. It hurt him to take a deep breath. He was again treated for malaria, although the attacks were not characteristic of this disorder; chills and fever were irregular and not pronounced. He spent the summer in the North, and apparently recovered completely. He returned to his Southern run in September and remained at work until the latter part of December. In November, a pea-sized lump appeared beneath the skin on his right cheek, just below the malar eminence, midway between the ear and the nose. This increased slowly to the size of a hazel nut, became sensitive, inflamed, and in about four weeks, broke and discharged like a boil. The resulting ulcer never healed, but has been slowly and steadily extending peripherally. In the following January (1904), a second very small lesion appeared beneath the first. This also broke and formed an ulcer which gradually spread. Other lesions appeared as follows: In February, one under the right jaw; in April, one just below and back of the right ear; in July, one under the chin. These all began as small lumps, freely movable beneath the skin, which in the course of from two to six weeks were transformed into more or less painful abscesses which eventually broke and discharged, leaving open ulcers or masses of infiltration,* with fistulous tracts leading from them.

About the first of February, 1904, he had an attack of dropsy that lasted about ten days. He was treated by Dr. Griffin of Paducah, Ky., who employed chiefly calomel and cathartics. At this time Dr. Griffin noticed a peculiar hard mass in the sigmoid region and considered the possibility of malignant disease. During the next two or three months the patient received a number of injections of the Alexander cancer serum in the abdominal wall of the sigmoid area. During this treatment he lost in weight and did not feel so well. Since suspending the injection treatment, and taking tonics, his general condition has again improved and he has gained in weight. In May he was examined by Dr. Oviatt of Oshkosh, who made a diagnosis of cutaneous tuberculosis, but could find no evidence of systemic disease.

EXAMINATION: The man appears to be in good general health, although he weighs but one hundred and forty-six pounds, which is about thirty pounds less than he has weighed for some years. His height is five feet, ten and one-half inches, and his general appearance is that of a fairly vigorous man. Some of the cervical glands are slightly enlarged, but no other adenopathy can be detected. The man was given a careful examination by our Associate, Dr. E. L. McEwen, who found no indications of systemic disorder except a slight emphysema along the borders of the lungs, and a peculiar firm mass, which was apparently due largely to muscular resistance, in the sigmoid area.

On the right cheek are two irregularly oval ulcers, the upper one being about $1\frac{1}{2}$ by $1\frac{1}{4}$ inches in diameter, the lower one being about $1\frac{1}{4}$ by $\frac{3}{4}$ inches. They are typical of the lesions of blastomycosis, except that the borders show but few miliary abscesses, and the central areas are flatter and drier than is usual in this disorder, these conditions being due undoubtedly to the various local applications he had been using. The margins are from $\frac{1}{4}$ to $\frac{1}{2}$ of an inch in width, are elevated about $\frac{1}{8}$ of an inch, and show the characteristic sloping, dull-red border, in which a few of the characteristic miliary abscesses can be detected. Parts of the margins and of the central portions of the ulcers are verrucous or covered with coarser papilliform projections. The tissue underlying the ulcers is soft and in places is infiltrated with pus. Two pea-sized, verrucous nodules are situated near the border of the larger ulcer, caused evidently by inoculation of the skin with secretion from the ulcer. Below and back of the right ear is a longer and narrower lesion of the same type as those seen on the cheek. An ulcer beneath the right jaw is partially healed, leaving an irregular scar with two or three pea-sized or slightly larger, discharging ulcers in the scar. The lesion beneath the chin shows an ulcer a little larger than a dime, with a considerably larger area of infiltration. A fistulous tract, from which a few drops of viscid pus could be pressed, leads from this ulcer an inch or more into the subcutaneous tissue. From one of the minute abscesses on the border of one of the ulcers, characteristic budding organisms were demonstrated, confirming the diagnosis of blastomycosis.

COURSE OF THE DISEASE WHILE UNDER OBSERVATION: The man was given the iodid of potassium internally, and for an hour each day a hot solution of bichloride of mercury, 1-1000, was applied to the lesions, which were covered the remainder of the time with a wet boric acid dressing, a simple dusting powder, or an ointment containing thirty grains of white precipitate to an ounce of lanolin.

He lived out of town, but reported occasionally. At the end of five weeks his general health had improved. He was then taking forty-five grains of iodid of potassium three times a day, and the cutaneous lesions were decidedly better though the borders continued to extend slightly and presented an occasional minute abscess, showing that the progress of the disease had not been arrested. From the middle of September to the middle of December, the same treatment, with the addition of tonics, was continued. During this time he received X-ray treatments every second or third day for one period of three weeks, and for two periods of two weeks each. Each course of treatment was carried to the point of producing a very slight reaction and resulted in the marked diminution of the cutaneous lesions, but each time in from one to two weeks after the cessation of the X-ray treatment, in fact, almost as soon as the reaction began to subside, distinct activity of the disease appeared in the border which progressed slightly and showed the characteristic abscesses. Cultures even were obtained at this time, though not so readily as when the man was not under the influence of the iodid.

When he left for home, December 17, his general condition was better and the cutaneous lesions were smaller and less active, than at any time since he had been under our treatment.

On his return, three weeks later (January 10, 1905), the old lesions were slightly smaller, but a new bean-sized area had appeared near one of the old ones on the right cheek, and his general condition was very much worse. He had lost his appetite, was weak, had been having night sweats, and was distinctly and strikingly cachectic. He said that he had been getting steadily worse for two weeks. He was taking one hundred and fifty grains of iodid of potassium three times a day. He had no cough, or expectoration, and there were no symptoms or evidences of pulmonary disorder. Smears from the new lesion on the face showed typical budding blastomycetes, and cultures taken from the same source grew readily, notwithstanding the fact that he had been taking such large doses of iodid of potassium. Secretions from the new cutaneous lesion and from the throat were stained and examined for tubercle bacilli with negative results.

At my request, Dr. Joseph Capps gave the man a thorough general examination, with the following results: Lungs normal, except for a relative dullness of the right apex and an occasional crackling râle over the suprascapular region after coughing. The heart, throat, eyes, liver, and kidneys were normal. The spleen was slightly enlarged. Over the sigmoid area there was marked mus-

cular resistance. This was present to less extent on the right side. Near the symphysis pubis there was a nodular mass the size of a hickory nut, and a band of infiltrated tissue about an inch in width extended along Poupart's ligament on the left side and gradually merged with the normal abdominal wall. The right side showed a similar tumefaction, but not so marked. The thighs could not be fully extended. Deep palpation over the sigmoid area gave the impression of a tumor due in part to muscular resistance. Inflation of the colon with air did not influence the tumor. Examination of the blood at this time showed leucocytes 20,400.

He was taken off the iodid of potassium, given tonics and sent home with instructions to have his family physician see him frequently and to report every week. I did not hear from him for nine weeks, when I had a letter stating that while he had improved a little at first, he had been, on the whole, failing steadily and rather rapidly. Soon after returning home, he had fallen into the hands of an advertising doctor, from whom he had been taking a secret remedy for tuberculosis. He stated that in the latter part of January, he had new swellings on the neck, breast, groin, foot, and elbow. These appeared beneath the skin as fairly firm lumps and became more or less inflamed and painful. Two of them had broken and discharged.

On March 19, I visited him at his home and found him very weak, suffering from much gastro-intestinal discomfort and from pain in the larger joints, although these were but slightly or not at all swollen and showed no distinct evidence of inflammation. He had no cough or expectoration and no other symptoms pointing to pulmonary trouble. There was a subcutaneous abscess the size of a walnut on the left side of the neck, which was soft and fluctuating. The skin over it was slightly reddened but not markedly inflamed, and there was no opening. The lesion was moderately painful only. It began, the patient stated, with a deep-seated lump some six weeks before. Abscesses which had opened and discharged, had appeared on the right side of the neck, over the upper end of the sternum, and on the outer aspect of the dorsum of the left foot just anterior of the ankle. The relics of these abscesses were surrounded by moderately firm masses of infiltration from which a small amount of pus exuded through fistulous tracts. Deep-seated, freely movable, more or less painful nodules, varying in size from a pea to a small nut, were found above and below the left elbow on the ulnar side, and in both groins. Over the larger lumps the skin was slightly reddened. None of them showed any signs of softening or fluctuation. From

the unbroked abscess on the side of the neck two grams of pus was drawn through a needle, and used for inoculating culture tubes and guinea pigs. Of the nineteen culture tubes inoculated, all developed abundant pure cultures of blastomycetes, except one tube, which showed in addition several colonies of the staphylococcus albus. As this tube was inoculated with pus that had been in the syringe thirty-six hours, the contamination was evidently accidental.

For the purpose of further examination and observation, he came to Chicago, and entered the Presbyterian Hospital March 31. He had been running an irregular temperature. The first four days in the hospital, his temperature varied from normal to 102. On April 4 he was given one-half m. gm. of tuberculin; on the 6th, one m. gm.; and on the 8th, three m. gm. Twenty hours after the last dose his temperature went to 102, and for the three following days ranged irregularly from 100 to 102. The temperature variations, however, were not such as occur after the use of tuberculin in tuberculosis, and as he had had these periods of high temperature before, and as they were repeated frequently during the subsequent weeks, the results of the test could not be said to indicate the presence of tuberculosis. He remained in the hospital a month, and during this time he was given chiefly tonic treatment with small doses of potassium iodid. He presented few symptoms aside from general weakness, depression, and a moderate amount of pain in the subcutaneous and cutaneous lesions, and pain which varied greatly from day to day in his joints. He had some intestinal discomfort and constipation. During his stay in the hospital, his general condition improved very decidedly. He became strong enough to get about with the aid of a cane quite comfortably.

Several examinations of his urine showed nothing abnormal. Blood examination, April 4, showed erythrocytes (Thoma Zeiss) 3,200,000; leucocytes (Thoma Zeiss) 20,400; hemoglobin (Von Fleischl) 60%. A number of blood cultures were made with negative results.

May 1 he returned home, and remained under the care of Dr. Combs from whom I had occasional reports. At times the patient seemed to gain slightly, but on the whole, he gradually became weaker and more helpless. No new symptoms developed. He died August 29, 1905.

AUTOPSY REPORT BY DR. BASSOE.

"Healed blastomycetic dermatitis of face and neck. Multiple subcutaneous abscesses with formation of fistulous tracts. Localized adhesive peritonitis (chiefly periappendicitis and perihepatitis). Deep

chronic abscess in left groin and thigh. Chronic cervical and inguinal lymphadenitis. Amyloid (?) spleen (slight). Meckel's diverticulum.

"The body has been embalmed, the arterial system having been injected with a fluid containing formaldehyde. The abdominal cavity has been separately injected.

"Permission was obtained for opening the abdominal cavity only. Time was too limited to permit a thorough description of the external appearance. All external lesions have been recorded clinically.

"The body is very emaciated and the skin very white.. Just below the ensiform cartilage is a raised area of integument which is found to mark the position of a subcutaneous abscess cavity measuring 5.5 cc. from side to side. It contains about 25 cc. of viscid whitish pus. The overlying skin is of normal color. In the left inguinal region on a level with the anterior superior spine of the ilium is a superficial ulcer which extends downward parallel with Poupart's ligament and measures 5.5 cm. by 4.5 cm. The edges are thin and deeply undermined. At the lower end of the ulcer the openings of two fistulous tracts are seen. The upper opening is 2 cm. wide; from it a tract passes toward the dorsum of the ilium. It lies just external to the peritoneum. The other fistulous tract leads downward and appears to communicate with the other tracts to be described later. On making pressure on the abdomen several ounces of pus of fecal odor flow through the opening. Immediately below the right Poupart's ligament is a superficial ulcer 3.5 by 2 cm. There is also a subcutaneous abscess over the upper part of the sternum, and others on the extremities.

"The peritoneal cavity contains embalming fluid. In many places the intestines have been perforated by the undertaker's needle. The liver is embedded in fibrous adhesions and does not reach the costal margin. There are a few fibrous adhesions about the spleen. Below the umbilicus numerous loops of small intestines are firmly matted together so as to form a large mass. The appendix is embedded in adhesions and passes downward from the cæcum for a distance of 2 cm., then turns at right angles toward the left so that the tip lies to the left of the median line beneath the mass of adherent loops of small intestine. From the point in the mesoappendix at which the appendix bends a yellowish, firm, fibrous band of the size of a lead-pencil passes downward to become adherent to the fundus of the bladder, which lies above the pelvic brim. The band is thin and fibrous until it reaches the bladder, when it expands to a solid yellowish cord 1 cm. in diameter and of a caseous appearance on section. The sigmoid flexure and upper part of the rectum are displaced a short distance toward the right, and on tearing through the peritoneum a cavity containing about 100 cc. of foul, thick pus is exposed. This cavity is bounded by the peritoneum and psoas sheath and extends a short distance into the thigh behind the neck of the femur. It communicates above by fistulous tracts with the openings at the lower end of the ulcer in the left inguinal region previously described.

"The pleural cavities are empty.

"The pericardium is smooth.

"The organs of the neck could not be examined. Many cervical lymph nodes are palpable.

"Both lungs crepitate freely; there are no distinct nodules.

"The heart is of normal size. The endocardium and valves show no changes. The myocardium is of a light greenish-brown.

"The spleen measures 12.5 by 8 by 5 cm. The Malphigian bodies are rather large and the cut surface somewhat homogenous.

"The stomach is of normal size, its lining smooth.

"The small intestines are opened in several places and the lining found to be smooth. The wall appears to be somewhat thickened. A Meckel's diverticulum of the size of the thumb is present.

"The large intestines have a smooth lining. The appendix as before stated, is sharply bent upon itself at a point 2 cm. from the cecum. Its total length is 7 cm. Its lumen is patent and the lining smooth for a distance of 5 cm. from the cecum. The distal part is solid and whitish in section.

"The liver is of normal size. So far as can be made out there are no distinct changes. The markings are visible.

"The gall-bladder shows no change.

"The pancreas and adrenals present no changes that can be made out.

"The kidneys are of approximately normal size. The capsules are free. No distinct change can be made out.

"The bladder is rather large, its lining smooth.

"The prostate does not appear to be altered.

"HISTOLOGY: The sections studied show the following changes:

"*Lung*: The lung tissue in general is emphysematous. Here and there, in the vicinity of bronchi, small dense areas, one-half mm. in diameter are seen. These are made up largely of mononuclear, round cells and young connective tissue; in places there are heaps of coal pigment surrounded by older fibrous tissue. The adjacent alveolar septa are thickened on account of infiltration with round cells. Portions of the inflammatory areas are necrotic, with the appearance of caseation, and one of them encloses a cavity of the size of the low power field, the wall of which is formed by necrotic inflammatory tissue or remains of alveolar walls. It is lined all around by densely packed blastomycetes, in places forming a layer more than twenty deep, with small lumps of blood pigment or degenerate red cells and a few round cells between them. A few budding organisms are seen. There are also numerous organisms in the inflammatory tissue surrounding the cavity and in the adjacent alveoli and their thickened infiltrated walls. No giant cells are seen.

"In the *Myocardium* places are seen in which there is an increase in fibrous tissue, especially around the blood vessels.

"The *Spleen* presents no changes of interest. The Malphigian bodies are rather large, and there is considerable blood pigment in the pulp.¹

"*Appendix*: Cross section shows complete fibrous obliteration of the lumen. The serosa is thickened and has the appearance of vascular granulation tissue, with small areas of caseation. Only one organism seen. No giant cells.

"*Peritoneal Adhesive Band*: Section shows it to be made up of caseous, fibrous tissue, nearly structureless, in places with distinct remains of concentric lamellation. Near the periphery fibroblasts and blood vessels remain, and at one point two multinuclear giant cells surrounded by mononuclear round cells are seen. No blastomycetes seen.

"*Liver*: Moderate fatty change.

"*Pancreas*: No change.

"*Adrenals*: No change. Both sectioned.

"*Kidney*: Moderate degeneration of convoluted tubules.

"*Inguinal Lymph Glands*: Here numerous typical blastomycotic nodules are seen. They contain numerous giant cells of the Langerhaus type, and in the cytoplasm of some of the giant cells several blastomycetes are seen."

THE ORGANISM IN CULTURES, SMEARS, AND TISSUE.

Pure cultures were repeatedly obtained from different abscesses. Nearly every tube inoculated with pus from an unbroken abscess produced a pure culture of blastomycetes. Blood serum tubes thus inoculated were each time placed immediately in the incubator, but no tubercle bacilli developed in any of them. The ease with which cultures were obtained was somewhat striking, in view of the fact that in smears of pus from the same abscesses from which cultures were taken, the organisms in recognized forms were present in very small numbers. In searching a smear of fresh pus many fields of a one-fourth inch objective would contain no organisms. A few contained from one to three or four. However, in addition to the characteristic, double-contoured bodies and budding forms, there were always a large number of smaller round cells, about the size of red blood corpuscles or slightly larger, which bore a strong resemblance to small organisms, though the double-contoured capsule was not distinctly demonstrable under potassium hydrate, and various staining methods did not bring out any definite structure. Many cells of the same type were seen in the tissues both of the patient and of some of the infected guinea pigs. The exact nature of these cells has not been determined, but it is possible that they are young, rapidly multiplying

¹ A small piece of the spleen was kept for some weeks in fifty per cent. alcohol. Some disintegration resulted and the sediment in the bottle showed blastomycetes in large numbers. In several other instances, the writer has used this method of finding the organisms in tissue, when they could not be demonstrated in the sections examined.

organisms. No transition forms could be discovered, however, either in pus or in tissue, between these small cells and the characteristic, double-contoured and budding forms of the organism.

As in every case that I have studied with Dr. Hyde and our associates, this organism varies considerably, in both gross and microscopic features, with the media employed and with the conditions and circumstances of growth. The characters, however, on glucose agar, glycerine agar, and Loeffler's blood serum are fairly uniform and are practically identical with those already described in a number of our cases.* Tubes inoculated with pus, or tissue, showed first macroscopic evidence of growth in from five to ten days, though in a few instances, in the incubator, the growth was two weeks in making its appearance. Tubes inoculated from old cultures show a growth in from two to twelve days. The organism grows more rapidly and shows a greater tendency to the production of mycelium at room temperature than in the brood oven, the most rapid growth occurring at about 85 degrees Fahrenheit, and especially in a moist atmosphere.

On glucose agar, at room temperature, the growth first appears as a minute, white, fluffy area with hyphæ projecting from the surface, and extending into the media. On this media the culture retain these characteristics, sending out aerial hyphæ abundantly from the surface and along the sides of the tubes. For the first few days, or even for several weeks, the central, fluffy point may be surrounded by a thin, translucent disk made up of fine, radiating lines on the surface of the media. On glycerine agar, the early appearances may be identical with those on glucose agar, or the growth may appear as a translucent, gelatinous, brown, or pasty growth. After some days most of the growths on glycerine agar become more or less moist or roughly granular, showing folds and depressions, and eventually produce the characteristic angle-worm appearance. Grown in the incubator, cultures on both media show fewer aerial hyphæ and more of a moist, slimy growth. For the first few days the culture may even closely resemble those of the *staphylococcus albus*. On blood serum, the growth appears usually as sharply outlined, slightly elevated, white, finely granular points. These in the course of a few days become smooth and are transformed into a gelatinous, or slimy and slightly discolored film. This gradually develops into a fairly tough, yellowish-brown, smooth membrane, which covers the entire surface of the media and adheres firmly to the side of the tube. Beneath this membrane, the blood serum, at the end of two or three weeks begins to liquefy. In cultures eight or ten weeks old, all the media beneath the membrane may be completely liquefied, but held in position by the membrane, even when the tube is inverted. The cultures penetrate and discolor all these media. After a week or more of growth, a yellowish, or golden-brown color appears, which gradually deepens in shade to a dull, fairly dark brown, or amber.

* For illustrations of the gross and microscopic appearances of these organisms see summary by the writer in *J. Amer. Med. Assn.*, 1902, 1, p. 1486.

Under the microscope, the most recent cultures show fine, branching mycelia with occasionally a small round body. Later the mycelia become coarser, segmented, and contain small, round, highly refractive, spore-like bodies. Cultures several weeks old, and especially the angle worm growth, on glycerine agar, show under the microscope a coarse, short mycelium, or pods, with broad, lateral conidia, all containing globular spore-like bodies. In addition, there are many round or oval bodies of varying size, from some of which one or more projecting buds or conidia are seen. Some of these round bodies are quite large, thirty or more microns in diameter, and contain from fifteen to fifty or more, small, highly refractive globules, like those seen in the short mycelium. Bud-like process, indistinguishable from forming buds in tissue, are seen pushing out both from the round bodies and from some of the short pods. Large, round bodies are seen not infrequently which have ruptured, allowing part or all of the spore-like bodies to escape. The latter appear isolated or in groups outside the empty shell and usually exhibit brownian movements. No further development of these spore-like bodies has been detected, though they were watched for many days at different times in hanging drops. Cultures grown in the incubator produce less mycelium, more round bodies, and coarse pods, while young cultures on glucose agar may be made up wholly of round bodies and budding forms identical with those seen in tissues.

Study of the organism on varying media under varying conditions of moisture and temperature disclosed nothing new. The fermenting power of the organism and some of its finer biologic features are yet to be worked out.

ANIMAL EXPERIMENTS.

Guinea Pig "A": On March 19 about six minims of pus removed with a hypodermic needle from the subcutaneous abscess in the neck of the patient, mixed with ten minims of normal salt solution, was injected within the peritoneum and in the subcutaneous tissue of the abdominal wall. A week later a pea-sized nodule appeared at the site of the inoculation which in the course of two weeks gradually increased in size and softened. On April 15 it ruptured spontaneously. Smears, and cultures showed both blastomyces and staphylococcus albus, but no tubercle bacilli. For six weeks the pig's temperature varied from 99 to 104, ranging most of the time between 100 and 101. He became greatly emaciated. Ten weeks after inoculation, he apparently regained his health, growing fat and remaining perfectly well until eight months later, November 29, when he was again injected intra-peritoneally with about twenty minims of a thick emulsion in normal salt solution of a pure culture of the organism on glycerine agar. During the following three weeks, the pig showed some, but not marked evidence of illness. Ten days after the inoculation a small tumor appeared in the abdomen which increased to form an irregular, hard, nodular mass about one-half inch in diameter, and attached to the wall of the abdomen. Three weeks

after inoculation, the pig was killed with chloroform. There was some loss of fat, and the superficial iliac glands were enlarged. On cutting through the abdominal wall a quantity of pus appeared. The abdominal wall in the right lumbar region was a mass of infiltration half an inch thick. This infiltration and thickening extended upward in gradually lessening amount to the diaphragm and over to the left side. In the right lumbar region the tumor mass could be seen growing between the muscular layers of the abdominal wall. The greater portion of the mass was firm but in places soft and necrotic. Adhesions were everywhere present throughout the abdominal cavity. The liver was bound to the abdominal wall. The under surface of the peritoneum was studded with small, white nodules from two to five millimeters in diameter. Most of these nodules were firm and on section showed little or no pus. A few were soft and contained pus. The liver, spleen and kidneys all showed small, firm nodules like those seen on the peritoneum, and also numerous minute abscesses. Both testicles were three or four times their normal size and completely riddled with small abscesses. Small nodules and pustules were seen on the under surface of the diaphragm. Extending entirely across the abdomen, following chiefly the larger curve of the stomach, was a hard, white cord of omentum, varying from two to eight millimeters in diameter. The lungs showed a few minute abscesses; the heart appeared to be normal. The organism was recovered in pure culture from the abscesses of the liver, lung, spleen, testicle, superficial iliac gland, tumor in the abdominal wall, and from the heart blood. Smears from these organs showed blastomycetes in very small numbers. Sections from the lung and testicle showed a granulomatous tissue with abscesses containing a small number of budding and circular organisms.

Guinea Pig "B": On March 20 received an intra-peritoneal injection of pus identical with that given pig "A" on the same date. For six weeks he had a temperature varying from 99 to 102, and showed evidences of emaciation. He died suddenly during the night, May 9. The autopsy showed no definite cause for death, though there was some injection of the peritoneum. The testicles showed conditions very similar to those of guinea pig "A." The cremaster muscle was also greatly enlarged and studded with abscesses. From the abscesses organisms were obtained in pure culture and demonstrated in smears. Cultures from other organs were negative. No tubercle bacilli could be found in smears and none grew on blood serum.

Guinea Pig "C": About four minims of pus taken from an abscess on patient's neck was injected in the pig's left leg below the knee. For the next three weeks he ran a temperature varying from 99 to 101. At the end of this time he was chloroformed, and found to be well nourished, with no signs of disease except; (1) at the site of inoculation, where there was a soft granulomatous and partially necrotic tissue, (2) enlargement and softening of the superficial iliac and deep iliac glands. From these three foci, smears showed characteristic blastomycetes, and the

organism was recovered in pure culture. Cultures from other organs were negative. Smears, and cultures on blood serum, were examined for tubercle bacilli with negative results.

Guinea Pig "D": Was inoculated with same material and in the same manner as guinea pig "C." During the succeeding six weeks the pig's temperature varied from normal to 102, but he showed no other marked evidence of illness. He made a full recovery and eight months later was in excellent health, large and fat. On November 29, he received an intraperitoneal injection of twenty minims of a thick emulsion, in normal salt solution, of a pure culture of the organism recovered from the deep iliac gland of guinea pig "C." In ten days there appeared a pea-sized abdominal tumor which grew rapidly for another ten days then gradually disappeared. On January 10, six weeks after inoculation, the pig was killed and the autopsy showed little evidence of general disorder. Some pin-head-sized, and slightly larger, nodules were found on the under surface of the peritoneum and on the surface of the liver. Other organs were apparently normal. Smears from the nodules showed blastomycetes and a pure culture was obtained from a nodule in the liver.

Guinea Pig "E": April 1 was inoculated on the leg below the knee with about four minims of pus withdrawn from an abscess below the elbow of the patient. Temperature for six weeks varied from 99 to 101.8, after which he appeared to be perfectly well. Eight weeks after inoculation he was killed and posted by Dr. W. A. Evans, who reported that he could find no evidence of tuberculosis or other disease.

Guinea Pig "F": April 1 was inoculated on the leg below the knee with about four minims of pus withdrawn from an unbroken abscess on the right side of the patient's neck. For five weeks his temperature varied from 100 to 103. Ten days after the inoculation a mass formed at the point of inoculation which gradually softened and ruptured at the end of a week. The organism was not found in the smear but was recovered in one tube inoculated. The pig died May 11; the autopsy showed a general, severe peritonitis, with enlargement of the superficial iliac, one retroperitoneal, and three groups of mesenteric glands. Miliary abscesses were found in the large colon, the liver, and in the left kidney. Smears from these abscesses showed the organism in small numbers but no tubercle bacilli. The cultures taken met with an accident and could not be studied.

Guinea Pig "G": April 25 received intraperitoneal injection of six minims of pus from an unbroken subcutaneous abscess below the patient's left elbow. The pig had for three weeks a temperature varying from 99 to 103 and became somewhat emaciated, but made a complete recovery. Ten and one-half months later, March 7, 1906, the pig, being fat, well, and active, received an intraperitoneal injection of ten minims of a thick emulsion, in salt solution, of a pure culture of the organism.

A week later he showed some signs of illness and had developed an irregular modular mass about three-quarters of an inch in diameter in the peritoneum at the site of inoculation. The pig was killed three weeks after inoculation, and was fat and apparently well nourished. The abdominal tumor seemed a trifle smaller than when examined a few days before. In the lower half of the abdomen, the peritoneum was thickened, and injected and showed numerous adhesions. There were several subcutaneous abscesses in the line of inoculation, and pea-sized abscesses a trifle higher up in the abdominal wall. Between the fundus of the bladder and the abdominal wall was a small nut-sized abscess surrounded by fibrous tissue, and adherent to the abdominal wall, two loops of intestines, and the seminal vesicles. The liver showed near the surface many minute pin-head-sized, or larger, yellowish white nodules. The other organs were apparently normal. Organisms were recovered in pure culture and demonstrated in smears from the superficial iliac gland and from the liver.

Guinea Pig "H": April 25 received an intraperitoneal injection of pus from the same source as that given guinea pig "G." For two weeks the pig had a temperature varying from 99 to 102.5, but made a complete recovery. March 7, 1906 (ten and one-half months later), the pig was healthy and active, but had not grown so much as its cage mate "G." Ten minims of a thick emulsion of a pure culture recovered from the superficial iliac gland of guinea pig "A" was injected intraperitoneally. A week later the pig was evidently quite sick, did not eat well, and at the site of inoculation there was an irregularly formed mass nearly one inch in diameter. After a few days the pig began to show some signs of improvement, eating better and becoming more active. Three weeks after inoculation, he was killed and posted. The superficial iliac glands on both sides were enlarged and there was a tumor the size of a large hazel nut above the fundus of the bladder, attached to the abdominal wall and surrounded by a mass of intestines and omentum. The peritoneum was generally thickened, in places being three or four times as thick as normal. Its under surface was studded with pin-head-sized, white and yellow nodules. Adhesions were present throughout the peritoneal cavity. The lesser omentum presented a thick cord of fibrous tissue extending across the abdomen and spreading out into a broad band like a diaphragm, practically dividing the left side of the abdominal cavity into two portions. The right end of the band was a thick cord about one-fourth of an inch in diameter. The liver was adherent to the diaphragm and abdominal wall, was very friable, and contained several pin-head-sized abscesses and smaller firm nodules. Three pea-sized, or smaller, nodules were seen on the under surface of the diaphragm. Other organs were apparently normal. Pure cultures were obtained from the lesions in the liver. Sections from the kidney, liver, and a nodule in the diaphragm showed a granulomatous tissue with abscesses containing budding and other organisms in small numbers.

Two half-grown rabbits received emulsions of pure cultures in the ear veins. Small local lesions developed in both. In one a tumor the size of a hazel nut formed, softened, and discharged. Neither rabbit showed any evidence of systemic infection. One of them was killed and posted six weeks after inoculation.

SUMMARY OF ANIMAL INOCULATIONS: (1) Tuberculosis can be excluded from the case beyond all question. Of eight guinea pigs inoculated at different times, from different abscesses on the patient, two (G and H) were well at the end of ten and one-half months; two (A and D) were alive and well after eight months. One (F) lived six weeks; another (B) seven weeks; one (C) was killed at three weeks; another (E) at eight weeks. Smears of pus and tissue from the last four pigs, and of pus from local lesions of the pigs that recovered, as well as many sections of tissue, were stained and examined for tubercle bacilli, with negative results. In every case cultures were taken on blood serum and kept in the incubator but no tubercle bacilli grew.

(2) Of the eight guinea pigs inoculated with pus from the patient, four (A, B, C, and F) developed local lesions from which blastomycetes were recovered and three (B, C, and F) developed lesions in glands or other organs. Five (A, D, E, G, and H) after showing for three or more weeks systemic influence of the inoculation recovered completely. Of this five, four (A, D, G, and H) were subsequently injected with pure cultures (two after eight months and two after ten and one-half months) and developed systemic blastomycosis. Of the eight pigs, two only died, one (B), at the end of seven weeks from causes which could not be determined, but evidences all pointed to his having been killed by his larger cage mate. The other (F) died six weeks after inoculation, of acute general peritonitis, and presented blastomycetic lesions in the glands, colon, liver, and kidneys.

(3) Of the four pigs that received intraperitoneal injections of pure cultures (A, D, G, and H), all developed abdominal lesions within ten days. Three of these pigs were posted three weeks and one six weeks after inoculation. In two the clinical symptoms pointed to the disease having passed its severest stage, and the clinically demonstrable lesions had begun to diminish in size.

(4) Blastomycetic lesions were discovered in, and the organism recovered from, the following tissues: Glands, superficial and deep iliac, or mesenteric (in A, B, C, F, G, and H); liver, (in A, D, F, G, and H); peritoneum, (in A, D, G, and H); omentum (in A, G, and H); kidney (in A, F, and H); abdominal wall (in A, G, and H); diaphragm (in A and H); testicles (in A and B); large colon (in F); lungs, spleen and heart blood (in A).

(5) In two guinea pigs (D and H), systemic infection was produced by inoculation with cultures recovered from the lesions of other guinea pigs.

CONCLUSIONS:

(1) This case is clearly one of blastomycosis in which the cutaneous lesions were secondary to deeper seated infection.

(2) The infection atrium cannot be accurately determined. The first lesion definitely located clinically was the psoas abscess, but the earlier and imperfectly described symptoms in the chest may have been due to pulmonary infection.

(3) In common with most of the reported cases of systemic blastomycosis the pathologic changes demonstrated by the autopsy were much more extensive than had been indicated by the symptoms during life. This feature in this case was especially noteworthy in the lungs which showed extensive blastomycetic infection without having produced cough, expectoration, or other definite symptoms of pulmonary disease.

(4) The iodide of potassium, which in most cases has a beneficial effect upon cutaneous lesions, seemed to exert little influence in retarding the progress of the disease, and the question might well be raised if the drug had not been active in breaking down local foci and thus aiding the rapid dissemination of the infection.

(5) That the organism isolated was the pathogenic agent is demonstrated beyond doubt in that: (a) It was recovered repeatedly in pure culture from unbroken abscesses in which no other organism could be found; (b) it was demonstrated in the tissue; (c) pure cultures of the organism produced the disease in guinea pigs, from which the organism was recovered and used successfully to inoculate other guinea pigs, thus fulfilling fully the requirements of Koch's laws.

(6) The organism was unusually pathogenic for guinea pigs, which, however, after a fairly acute infection of a few week's duration, showed a distinct tendency toward recovery.

(7) Extension of the disease through the lymph channels occurred, but not extensively, in the patient and in most of the guinea pigs inoculated. Once only was the organism recovered from the heart blood of a guinea pig.

(8) Considering the ease with which cultures were obtained from the lesions, and the regularity with which the disease was reproduced in guinea pigs, the number of blastomycetes demonstrated in the tissue and in pus was surprisingly small and suggested the possible presence of unrecognized forms of the organism.

(9) Amyloid changes were slight and much less than would be expected in a case with such extensive suppuration.

(10) Tuberculosis as a complication can be excluded absolutely from the case as it could not be detected by the many thorough and varied tests employed.

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FIG. 1.



FIG. 2.



a.

b.

c.

FIG. 3.



FIG. 4.

FIG. 1.—Subcutaneous abscess under chin, and cutaneous lesions.

FIG. 2.—Culture on glucose agar, two weeks old, grown at room temperature.

FIG. 3.—Cultures four weeks old: (a) on glucose agar and (b) on glycerine agar, grown at room temperature; (c) on glucose agar, grown in the incubator.

FIG. 4.—Smear (unstained) from "c"; showing budding forms and beginning mycelial growth.

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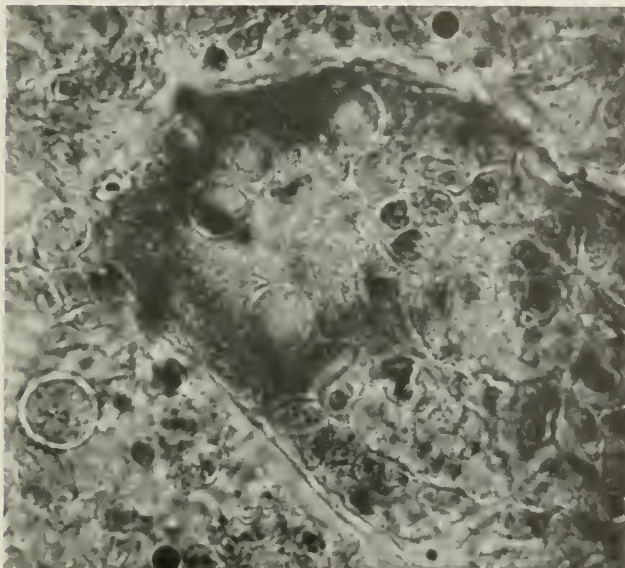


FIG. 5.

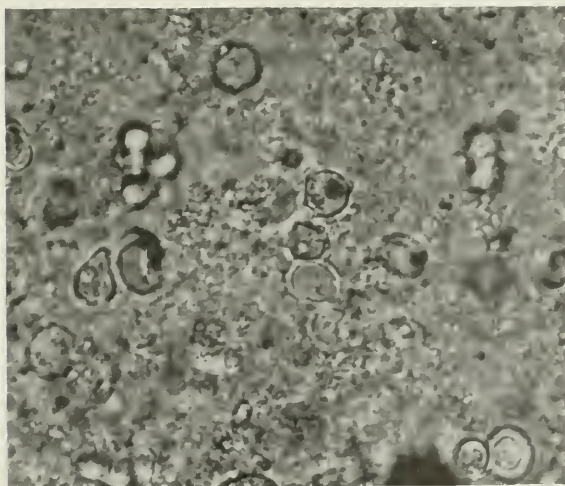


FIG. 6.

FIG. 5.—Giant cell showing several organisms, from inguinal lymph gland of the patient.

FIG. 6.—Sediment from bottle of 50% alcohol in which a piece of the patient's spleen had been preserved.

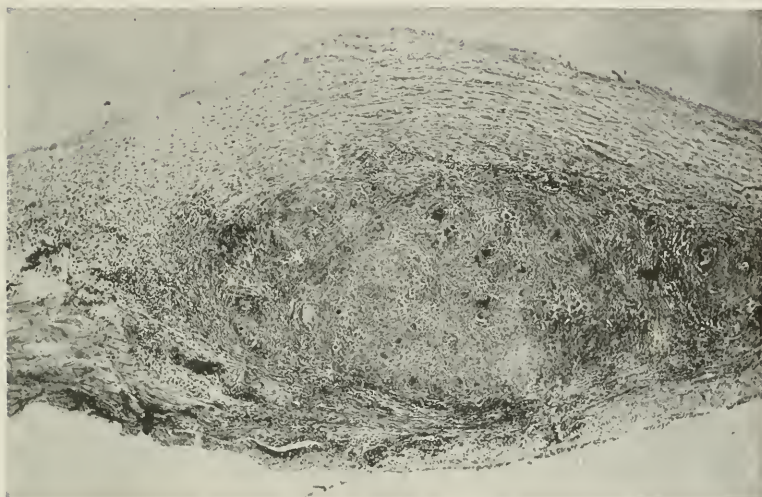


FIG. 7.

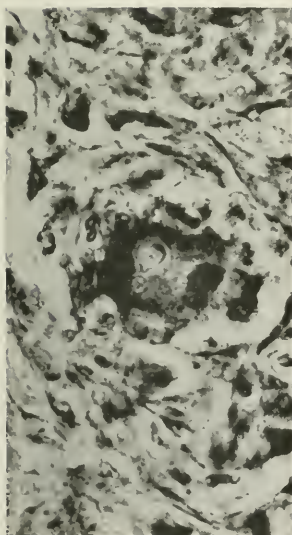


FIG. 8.



FIG. 9.

FIG. 7.—Section of a characteristic nodule from the diaphragm of guinea pig "H."

FIG. 8.—Giant cell containing a budding organism. From the nodule shown in Figure 7.

FIG. 9.—Section from testicle of guinea pig "A," showing characteristic abscesses and giant cells.

(11) This case shows, together with several others on record, a very striking resemblance clinically and pathologically to the California cases reported as *granuloma coccidioides*, and wipes out most of the distinctions drawn by D. W. Montgomery and others between the two types of infection. There remains, however, one distinct and fundamental differences, and that is the method of development of the organisms in tissues; the one by budding, the other by endogenous spore formation.

A number of questions bearing upon blastomycosis in general and its relation to *granuloma coccidioides* are purposely omitted here as they will be considered more fully in a paper now in preparation by Dr. Ormsby and the writer.

SOME FURTHER OBSERVATIONS ON THE TREATMENT OF PIGMENTED HAIRY NAEVI WITH LIQUID AIR; THREE ADDITIONAL CASE REPORTS.

By WILLIAM B. TRIMBLE, M. D.

Chief of Clinic and Instructor in Diseases of the Skin, University and Bellevue Hospital Medical College; Assistant at the New York
Skin and Cancer Hospital.

(Read before the Syracuse Academy of Medicine.)

IN a brief paper published in the New York Medical Record of July 8, 1905, I have previously commented on this subject, giving the results of several experiments made on cases of pigmented and vascular naevi, epithelioma and lupus erythematosus.

While the work was in progress at the New York Skin and Cancer Hospital, the supply of liquid air was suddenly discontinued, and being unable to obtain more, the experiments were curtailed at a most interesting period. Since that time it became possible to procure a small quantity at considerable expense; this prevented any further work being done in the Hospital; however, the studies have been continued, but only in a private way.

Most new remedies, having been tried with varying success in other departments of medicine, find their way to the skin specialist, to be tested for their efficacy on those chronic conditions which have baffled us for so long, namely: lupus, epithelioma, birthmarks, etc. This one in question has been put to the usual tests, and the results, especially in that condition given in the title of this article, have been most gratifying. Should one desire to delve deeply in the literature of *naevus pigmentosus*, he would find all manner of remedies and expedients suggested for their removal, such as electrolysis, caustics, injections of alcohol, excision, etc. It is true that a sporadic cure is sometimes effected with some of these methods;

as in the case of a naevus, which is very narrow and not very long, similar in shape to a narrow band; it is then most amenable to excision, which, of course, should be practised; nevertheless, it is needless to add, that the above mentioned remedies have given very little satisfaction.

The former publication gave the results of treatment of several miscellaneous skin lesions, but it is intended that these remarks shall apply entirely to the therapeutic value of liquid air on the black hairy mole.

Everyone is more or less familiar with this new remedial agent, yet it may be well to quote here some of its physical characteristics. Liquid air is the common air we breathe, very much reduced in temperature. It liquefies at 312° F. below zero. We can readily understand how cold it must be when we are told that it is about 400° colder than the ordinary atmospheric air. The gases that make up the normal air are practically in the same proportion, when the air is liquefied. To the eye, the liquid seems to be boiling, giving off fumes similar to those of nitric acid. It is slightly opalescent in color, and to the touch it feels very cold and dry, giving a sensation of tingling. It evaporates rapidly, consequently it can be kept but a short time. We have been unable to keep it at the Hospital more than two or three days. Its method of transportation is really a great obstacle, as it will explode, if corked up tightly; therefore, a small hole is always left in the stopper, from which evaporation goes on. It is transported at the present time in a glass bulb; within the larger bulb is a smaller one; the intervening space between the two is a vacuum; this is called a "Dewar" bulb.

In making the applications, three arbitrary degrees of pressure can be employed: *light*, *medium* and *hard*. The first and third have been practically discarded. Light pressure, in the sense in which it is used in this article, is similar to the fleeting touch of a Paquelin cautery as applied in cases of lumbago, merely causing a slight erythema, and anæsthetizing the skin for a moment.

The best description that the writer can give of medium pressure is, that the applicator charged with the fluid, be held against the lesion with sufficient firmness to prevent its slipping from its place, and to slightly depress the skin. This method will cause a very superficial tissue destruction, which is the desired object in the treatment of pigmented naevi. Should hard pressure be exerted, it will cause a very deep slough, with a consequent tough, irregular scar; this is to be avoided unless the operator wishes to produce a great loss of tissue. The extent of reaction is a matter

of choice, and depends altogether upon what variety of dermatosis is to be treated.

The action on the tissues is that of freezing, and the effect of such extreme cold is to produce a marked contraction of the capillary blood vessels, thereby causing a circumscribed anæmia, which is soon followed by congestion.

Should the application be made with the second or third degree of pressure, an obliterating endarteritis supervenes, to be followed by molecular tissue death.

Immediately following the treatment, the tissues are rendered hard to the utmost degree; this soon gives way to an erythema, and before the patient leaves the office, the only visible sign is redness of the part. Within the ensuing twenty-four or thirty-six hours, an inflammatory reaction takes place, with the usual symptoms—heat, pain, redness, etc., but practically no œdema: as a rule a bulla then arises on the site of the lesion; this in time collapses, to enter into the formation of a scab, which subsequently falls; then it is discovered that both hairs and pigmentation have materially disappeared.

The resulting scar has been a subject of considerable discussion among my confrères for the past year; it is freely admitted that some slight scarring takes place; this seems to be necessary in removing the naevus; the extent of the cicatrix depends, however, somewhat on the skill of the operator, whether or not care has been exercised in using the *medium* degree of pressure. If this latter point is strictly observed, a thin, pliable, slightly-perceptible cicatrix is the result, which is, from a cosmetic standpoint, much preferable to the naevus removed.

The technique is simple; two methods can be employed, the swab or spray; the former was deemed the better one for the lesion in question. A pine stick, eight or ten inches long, is used as an applicator; this length is requisite to reach the lower part of the bottle, which has a very long neck. On the end of the stick is tightly wrapped a piece of absorbent cotton, making a mop, if possible, almost equal to the size of the lesion to be frozen. If the nævus is a very large one, it is then more desirable to treat it in sections. The patient is seated in a comfortable position, with the lesion exposed to the convenience of the surgeon; the swab is dipped into the liquid until saturated, the excess is allowed to drip off, and then applied with the medium pressure as before described. If the mole is situated on the cheek, counter pressure, with a finger in the mouth, is a great aid in determining the amount

of strength exerted by the opposite hand. After a wider experience with the subject, it is deemed better surgery to make the applications only once in two weeks, instead of weekly, as formerly stated. A good rule to follow is to wait until the scab falls before freezing the lesion for the second time; this will enable the operator to see what has been accomplished by the first treatment, and to act accordingly, as sometimes a small naevus can be cured with a single application.

CASE 1. A. F., boy aged eleven. The lesion was situated on the left upper eyelid, extending slightly beyond the outer canthus. It was brown, very hairy, darkly pigmented, resembling greatly the skin of a mouse, $1\frac{1}{2}$ in. long, $\frac{1}{2}$ in. wide, with edges sharply circumscribed. About twelve applications of liquid air were made. Some œdema of the eyelid, and a rather profuse amount of lachrymation followed the applications. The hair began to disappear after the fourth treatment, ulceration commenced and a scab formed. Healing took place under the scab, leaving a clean and practically normal skin.

CASE 2. E. E., girl, aged five. The lesion was situated on the left cheek, just to one side of the left angle of the mouth; about the size of a twenty-five cent piece; deeply pigmented, covered with hair, mouse skin variety. Liquid air was applied about six times; much inflammation followed the last treatment, but the case progressed favorably; there was some slight scarring, but a fine result.

CASE 3. A. F., girl, aged sixteen. The lesion was situated on the right side of the nose; $\frac{3}{4}$ in. long, $\frac{1}{2}$ in. wide; covered with long brown hair, mouse skin variety. Seven applications were made; the hair entirely disappeared and nearly all pigmentation; there remained a healthy scar, very slightly pigmented at one point; good result.

CASE 4. R. K., girl, aged six. The lesion was situated on the right temple, just beyond the outer canthus of the right eye, pigmented as in the above cases. Three applications of liquid air resulted in a cure. There was a smooth, white scar, hardly noticeable, except on close inspection.

CASE 5. C. R., woman, aged twenty-four. The lesion was situated on the lower part of the left cheek, just to one side of the left angle of the mouth; pigmented and covered with thick, reddish-brown hairs, same kind as in above cases; size of a twenty-five cent piece. Five applications of the liquid were made; this healed with the exception of a small spot in the center, which still contains some hairs.

CASE 6. H. R., boy, aged seventeen. Nævus situated on left

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cheek; size of a twenty-five cent piece, not exactly round; dark brown color, covered thickly with coarse brown hair; six applications were made; at the time of last treatment the lesion had disappeared with the exception of a small, pigmented spot, containing a few hairs. Since the sixth treatment a communication from the patient states that he is cured with a very mild scar.

CASE 7. M. A., girl, aged twenty. Nævus situated just under the chin, a little to the left of the median line; about the size of a five cent piece; black, and full of coarse black hairs. Seven applications made; practically no scar; one small, slightly pigmented spot about the size of a match head remains of light brown color. One more treatment will remove the last vestige of pigmentation.

CASE 8. M. E., girl, aged twenty. Lesion situated to the left of the middle line of the chin, just below the left angle of the mouth; about the size of a ten cent piece. It was of the mouse skin variety; a peculiar feature of this case was the central portion (size of a match head) was of the verrucous type, protruding from the surface about $\frac{1}{8}$ of an inch. Four treatments with liquid aid effected a cure; no pigmentation and an unnoticeable scar.

The two contesting histological theories, as to the origin of nævi, viz., epithelial or endothelial, do not seem, on cursory view, to bear on the method of treatment; still, if the latter be the correct theory, it would cause one to infer that unless the small blood-vessels were destroyed for a short distance beyond the limits of the lesion, it might possibly recur or reform in some way. There has been no tendency to recurrence in any of these patients, and most of them were kept under observation over a period of one year. Cases 1 and 4 have been observed at intervals for two years. The obliterating endarteritis brought about, as already referred to, might be used in explanation of this point.

Like many others, this treatment has its advantages and disadvantages. The superior points are, it is a clean, dry, cold method, easy to apply, almost painless, and its results are more uniform and satisfactory than in other modes of procedure.

The objections to the method are,—the expense, the rapid evaporation, the difficulty of transportation, and lastly, the inability to obtain the liquid air at all, except at very long and irregular intervals. It is hoped that this last obstacle will be met and overcome sometime in the near future.

DESCRIPTION OF PLATE.*

FIG. 1. Exhibits the original nævus.

FIG. 2. Shows the lesion after five applications of liquid air.

FIG. 3. Shows the final result.

* I am indebted to Dr. Howard Fox for the photographs.

A CASE OF ACRODERMATITIS CHRONICA ATROPHICANS WITH CO-EXISTING SCLERODERMA.

By JEROME KINGSBURY, M. D., New York.

IN the first series of cases of acrodermatitis chronica atrophicans, described at great length by Herxheimer and Hartmann, the authors laid particular stress upon the absence of true sclerodermic lesions. In a more recent article, however, Herxheimer refers to a case of this peculiar type of cutaneous atrophy where in places the skin was bound down. This patient was shown by Lesser, at the International Dermatological Congress, held at Berlin in 1904. In commenting upon the case, Herxheimer suggested that it was probably one having an acrodermatitis added to a scleroderma. That there was an accidental co-existence of the two affections, seemed to him more probable than that there was any direct or even remote relationship between them. No reference was made to a possible transition.

In considering the association of these affections it should be remembered that there have been reported not a few cases of so-called idiopathic cutaneous atrophy with co-existing scleroderma. As the former condition may closely resemble the later stage of acrodermatitis, it is not unlikely that some of them may have been unrecognized cases of this affection. Assuming that this is so, it would appear that the association may not after all be a particularly uncommon one, and this would naturally point to some similarity in etiology. It is not the intention of the present writer, however, to attempt to throw any light upon the possible generic relationship of these affections, but merely to report a case that has recently been under observation in the class for skin diseases at the Presbyterian Hospital Dispensary.

History—The patient is a Russian Jewess, thirty years of age. Married four years, and is the mother of two healthy children. One of them is three years old; the other eleven months. No miscarriages. The woman has lived in this country for the past fourteen years, and previous to her marriage was employed as an operator in a shirt factory. Family history is negative except as regards the father, who is said to have suffered from frequent and severe attacks of rheumatism. Patient is a decided brunette, rather swarthy, and looks somewhat older than recorded age. She is fairly

well nourished, and states that her general health has always been good. No history obtained of any symptoms of syphilis, and there is no ocular evidence of the disease. The woman is naturally greatly worried about the conditions of her skin, and is considerably depressed in spirits, but there are no symptoms directly referable to the nervous system.

No history of any cutaneous affection until about three years ago, when the patient noticed that the back of her right hand was red and slightly swollen. There was no pain, however, and no apparent change in sensation. The swelling soon subsided, but the redness persisted, and gradually extended to the fingers, and over a larger area of the back of the hand. A red patch next appeared over the right elbow. Subsequently both feet became affected, and somewhat later lesions appeared over both knees. Shortly after the knees became involved it was noticed that the skin on the legs and forearms became rough and dry. The next change observed was in and around the reddened areas. Here, although the skin was thin and wrinkled, a peculiar hardness could in places be detected. This was particularly marked on the back of the right hand. About this time areas of hard skin developed on the left forearm and thigh, and these gradually enlarged. One year ago swelling and redness appeared on the back of the left hand. This is said to have been identical with the condition that developed two years before on the back of the right hand. At the present time the woman complains of considerable pain in the right hand and leg. This is described as being of a burning character, and the deeper tissue seems to be affected as well as the skin.

Examination—The skin covering the head, trunk and buttocks, appears normal. Only the extremities are affected, and the right side is more involved than the left. On the dorsal surface of the right hand is a depressed area about three inches long by two wide. Here the skin is quite hard, although it can, with some difficulty, be squeezed into wide wrinkles. The border of this patch is not very sharply defined, and the capillaries are rather conspicuous. This is the site of the first lesion of the disease. The rest of the skin on the back of the hand and fingers is thin, somewhat atrophic, and of a bluish red color. A nodule, about the size of a French pea, is situated on the first joint of the index finger. This is the only evidence of any tumor formation in the case. The palm and nails are practically normal. On the forearm the skin is atrophic and quite rough. It is considerably thinner than normal, and the deeper

tissue also shows atrophic change. This condition is more marked on the extensor than on the flexor surface. Over the right elbow the skin is very thin and considerably wrinkled. There is apparently more than is necessary to cover the subjacent parts. The upper arm presents similiar, though less marked, atrophy than on the forearm, and this condition blends imperceptibly with the normal skin. The skin covering the toes is dark red, and this is the color of the skin over the entire dorsal surface of the foot except at the ankle. Here there is a depressed white patch, somewhat larger but similar in character to the one on the back of the right hand. On the leg the skin is atrophic and of a reddish brown color. It is very rough, and there seems to be slight desquamation. From a short distance the condition looks like an ichthyotic one. Over the knees the skin is very thin and the condition so frequently referred to as resembling "crumpled cigarette paper" is well illustrated. On the anterior and outer aspects of the thigh, the skin is rough and atrophic, but it is normal on the flexor and inner surfaces. On the dorsal surface of the left hand is an irregular shaped area that is nearly three inches long by two wide. The skin covering it is of a bluish-red color. Fingers of this hand are but little affected. The condition on the left forearm and elbow is about the same as that of corresponding regions on opposite side. On the left arm, however, there are irregular band-like areas of typical circumscribed scleroderma. Here the skin is of an ivory color, and is hard and bound down. Skin between the patches shows slight atrophic change. On the left thigh there are patches of scleroderma that are similar though somewhat larger than those on the arm. Appearance of left leg and foot is much the same as that observed on the right side. As the condition is still an active one, it is quite probable that changes may occur in many of the present lesions, and that later new ones may develop.

For clinical convenience the above case can be dismissed as one of *acrodermatitis chronica atrophicans* plus circumscribed scleroderma. Our present knowledge of these affections, particularly of the first, is not sufficient, however, to warrant a definite nosologic classification.

CORRESPONDENCE.

HARLEY STREET, LONDON, W., July 8, 1907

TO THE EDITOR OF THE JOURNAL OF CUTANEOUS DISEASES, NEW YORK.

Dear Sir.—In connection with Dr. Winfield's excellent paper on "Pemphigus Vegetans" which appeared in your issues of January and February, 1907, I should esteem it a favor to be allowed to make a few remarks. At the Oxford meeting of the British Medical Association in 1904 I read a paper on "The Bacillus Pyocyaneus and Pemphigus Vegetans" (*British Med. Jour.*, Oct. 15, 1904, p. 992), in which I called attention to the fact that in 1900 I had found *B. pyocyaneus* in pure culture in the fluid of a bulla from a pemphigus vegetans case. I suggested at the time that the *B. pyocyaneus* probably played an etiological part in the production of the disease in this particular case, and was possibly derived from sewage. In support of the latter I gave various references which will be found *à la suite* of my paper. The isolation of the same micro-organism in Dr. Winfield's case lends further support to my contention as to causation. But I should like to point out that Dr. Winfield has been misled by the report of my paper which appeared in the *Brit. Jour. of Derm.* I did not find *B. coli communis*, but *B. pyocyaneus* in the serum contents of a bulla.

In my opinion, pemphigus vegetans is not necessarily an entity, etiologically speaking, but possibly arises as the result of various infections, among which that by *B. pyocyaneus* may be included. I do not for a moment desire to lay down that that particular microbe is at the bottom of all cases of pemphigus vegetans.

With my thanks, believe me,

Yours faithfully,

GEORGE PERNET.

BOSTON DERMATOLOGICAL SOCIETY.

February meeting.

DR. JAMES S. HOWE in the Chair.

Benign cystic epithelioma. Presented by DR. C. J. WHITE.

The patient is a girl aged twenty, born in this country of German parents. Her past and present history is unimportant and none of her family present any cutaneous anomaly.

Seven years ago the first signs of the present condition developed as small nodules in the median line at the base of the neck which the patient likens to warts. Other new growths appeared soon after and the earlier lesions continued to increase in size and elevation. In this manner the disease began to involve the neck and the chest. No nodules have disappeared and new ones are still forming, especially during the past year; and at present one sees on the neck (particularly laterally), thickly, clustered, flat topped, slightly elevated, rather soft, irregularly oval, café-au-lait to whitish papules. Below the clavicles and extending downwards to the umbilicus and laterally to the mid-axillary lines are many score of lesions of a somewhat different type. Here the nodules reach a larger size. They are practically round except where later growth has caused partial coalescence of neighboring lesions. They are dome shaped and firm and elastic. They are usually of a whitish hue save where minute, superficial capillaries tend to produce a pseudo-reddish tint. They are freely movable in the skin. In size they vary from a pin's point to a large pea.

In warm weather the patient perspires freely, especially in the abnormal regions of the skin; then the nodules grow red and itch and burn more or less. Cold on the other hand produces no subjective or objective changes.

For histological study two hundred and twenty-four serial sections were made in paraffin and stained in several ways. The main pathologic lesion present were—circumscribed masses of epithelial cells (?) which formed numerous shapes; eventually ended (when of sufficient size) in central degeneration and cystic formation; and could be connected with no epithelial structures.

Personally, Dr. White felt convinced that there was distinct relation between these tumor cells and the vascular system which was unquestionably and decidedly abnormal, and consequently, in his opinion, these pathological cells were endo- or perithelial in origin, but Dr. Mallory, Associate Professor of Pathology in Harvard University, and Dr. Fordyce held strongly to the epithelial nature of the process.¹

¹ This case will probably be published *in extenso* at a later date.

Syphilide. Presented by DR. ABNER POST.

A male patient, twenty-eight years of age, had a penile sore two years ago, the cicatrix from which was still visible. At about the same time his wife had a labial sore and an eruption over her skin.

The patient presented a generalized maculo-papular exanthem of a deep, dull red color, interspersed with some pigmentation, which on healing, left cicatrices. On the scrotum, a serpiginous eruption, formed by incomplete rings, was seen.

The patient was uncertain as to the duration of his eruption but he thought that he had had it for two years, or since soon after the development of his penile sore.

Discussion: Some incredulity was expressed as to the alleged duration of the existing outbreak. The condition seemed undoubtedly syphilitic.

Syphilis? A case for diagnosis. Presented by DR. C. M. SMITH.

This patient developed his present eruption two weeks ago. A prominent bright red macular exanthem may be seen profusely disseminated over the trunk, particularly anteriorly, and to a lesser extent on the upper and lower limbs and the face. Across the dorsal region a fairly well marked acneiform eruption may be discerned.

The patient's history runs as follows: In June, 1904, he was treated at the Massachusetts Eye and Ear Infirmary for an ulceration of the cornea. The following September he had a small sore on his penis which lasted four weeks and which, so far as he knows, was not followed by other symptoms. In December of the same year he was again treated at the Massachusetts Eye and Ear Infirmary, this time for a hæmorrhagic condition of the left eye; a part of the treatment consisting of inunction with mercurial salve.

The patient came under my observation for the first time in April, 1905. His vision was poor. He also showed some induration at the site of the old penile lesion and palpable glands in the groins and elbows. In February, 1906, following coitus, two small chancroidal ulcers developed on the penis which ran a sluggish course and were not succeeded by any symptoms of syphilis. Last November the patient again came under observation for a copaiba eruption as the result of medicine taken for gonorrhœa. Later a large flat papule appeared on the upper lip which, under an ointment of ammoniated mercury, soon healed. One week ago he came with the present eruption which had already been out a week. During the past week his left eye has become congested with some associated inflammation of the iris.

Discussion: In view of knowledge of the patient's previous syphilitic infection there seemed little doubt that the eruption on account of which the patient was presented, was due to a drug; probably copaiba. The development on the lip followed by an outbreak over the skin was thought interesting, but merely a coincidence.

Lichenoid lesion. A case for diagnosis. Presented by DR. ABNER POST.

A man, twenty-six years of age, has gradually developed a lesion on the anterior aspect of the lower third of his right leg. According to the patient's statement it began four months ago as a dime-sized area which has slowly and progressively enlarged. It is now roughly quadrilateral shape, three inches in diameter and with well defined edges; the whole lesion being considerably elevated above the general surface of the skin. It is firmly infiltrated with a rough verrucous surface and is of a deep dull red color. The lesion at times itches considerably.

Discussion: That this process was lichenoid in type opinion concurred, but as to whether it should be designated lichen planus, lichenification of the skin, or chronic irritation of the skin with resulting infiltration, there was some difference of mind.

A case for diagnosis. Presented by DR. ABNER POST.

This patient has had the skin affection seen to-night since last April. Prior to that date he is not aware of having had any skin disease. He is a man thirty years of age. On the trunk, front and back, and on the face are moderately profuse disseminated macules, bean to quarter sized of a brownish pigmented hue. Also on the trunk and the outer aspects of the forearms a rare, rather indefinite small scaling papule may be seen. The scalp seems normal except for a mild furfuraceous seborrhœa. Venereal disease is denied. The eruption itches slightly; not enough to provoke excoriation of the skin.

Discussion: Syphilis, urticaria pigmentosa and arsenical pigmentation were considered diagnostically in this case. As the eruption had remained in situ for nine months, did not look syphilitic, and moreover, presented in conjunction no suspicious symptoms of syphilis, the existence of that disease did not seem probable. The age of the patient and the evolution of the process seemed to preclude urticaria pigmentosa. As to arsenical pigmentation—it could not be ascertained that the patient had taken arsenic, and he furthermore showed no symptoms of the effect of arsenic on the skins—such as hyperkeratosis of the palms. The nature of the dermatosis remained obscure.

Lupus vulgaris hypertrophicus. Presented by DRs. C. J. WHITE and BURNS.

Mary, æt. fourteen. Family and previous history negative as regards tuberculosis. The present disease is of a year's duration. It is associated by the patient's mother, with the visit of a friend, who remained in the family several months and who, a few months later, went to the sanatorium at Rutland, Massachusetts, for the treatment of a pulmonary affection.

When the patient first came under our observation, five weeks ago, the lobe of the nose presented a diffuse, soft, hypertrophic lesion. No characteristic nodules were seen but there were several small irregular crusting ulcers at the edges of the alæ. The patient's age and history, together with the soft tumefied tissue of which the diseased area was composed, left no doubt in our minds as to the existence of lupus vulgaris.

On January 24th the diseased portion of the nose was thoroughly curetted under ether and on the following day X-ray treatment was begun. The wound has healed with gratifying rapidity, and although not yet completely healed the patient's chances of complete cure seem good. The cosmetic result of the treatment is also pleasing. The nose is now almost symmetrical and except for the irregularities of contour of the alæ only slight deformity is suggested.

F. S. BURNS, *Secretary*.

CHICAGO DERMATOLOGICAL SOCIETY.

Meeting of March 29, 1907.

DR. FRANK H. MONTGOMERY, *Chairman*.

Case of Tuberculide (*Acnitis* type). Presented by DR. ORMSBY.

The patient, a man of fifty-six years, had suffered with the disorder for about three months. He stated that the lesions began on the right side of the neck as small, white, sub-dermal papules, which gradually spread. At present the lesions occupy chiefly the region of the cheeks, eyelids and forehead. A few are on the neck on either side, the dorsum of the hands, wrists, and also a few on the fore-arm. They vary in size from pin-head to nearly that of a split-pea; are sub-dermic and vary in color from normal to bluish-red. Some are capped with small necrotic area or pustule. Over the temple on the left side occurs a patch the size of a quarter of a dollar, containing brownish-red nodules exactly like those of lupus vulgaris. There are no suggestive sensations. The family history and the patient's past history are negative.

Case of Xanthoma Diabeticorum. Presented by DR. W. A. PUSEY.

Patient was a middle-aged man, enormously fat, who was passing large quantities of sugar in the urine. The xanthoma had developed within eight months. He also showed multiple lipoma, which he had had since childhood.

Case of Epidermolysis Bullosa. Presented by DR. W. A. PUSEY.

Patient was a boy fifteen years old, who gave a history of lesions since childhood. There were secondary atrophic changes in fingers and toes with loss of nails. The family history was negative.

Case of Lichen Planus. Presented by DR. W. A. QUINN.

The patient, Mrs. J., forty-two years of age, gave a history of having had a previous skin trouble seven years before, which was diagnosed as psoriasis and lasted almost a year. The present trouble began three months ago, on the legs and has extended over most of the trunk and extremities; the characteristic lesions of lichen planus are present; the itching is intense.

Case of Naevus Pigmentosus. Presented by DR. W. A. QUINN.

A girl, twelve years of age, showed pigmented lesions on the left half of the forehead, extending backward over the left side of the scalp. The spots were about the size and shape of the common freckle, and were slightly darker in color. The mother stated that she had not noticed the spots until the girl was five years old.

Case of Dermatitis Herpetiformis. Shown by DR. E. A. FISCHKIN.

Norwegian, tailor, 31 years of age. Never had any skin disease before. The present disease started eight weeks ago with severe pruritus followed by a papulo-vesicular eruption, which appeared on different parts of the body. Since then there have been several crops. When he first presented himself for treatment (eight days ago) there was present a group of vesicles in the region of the larynx, and on the back of the neck a larger group extending to the mastoid region; the face showed a number of vesicles over forehead and nose. The most characteristic lesions are now to be seen on the shoulders, arms, buttocks and on the popliteal regions; the groups are crescentic in many places; the vesicular type prevails.

DR. ERNEST L. McEWEN, Reporter.

REVIEW of DERMATOLOGY AND SYPHILIS

Under the charge of A. D. MEWBORN, M. D.

BENIGN NEW GROWTHS.

By ELIZABETH JAGLE, M. D., New York.

The Histology of a Case of Linear Naevus. H. G. ADAMSON. *Brit. Jour. Derm.*, 1906, Vol. XVIII, No. 7, p. 235.

The author found that the lesion in question had the structure of a hard naevus, viz., a combined acanthosis and hyperkeratosis without inflammatory changes in the corium, which supports the view that such changes are secondary and not an essential part of the lesion. The area examined consisted of soft pin-head-sized, flat, pale brownish papules.

The epidermis was found irregularly thickened, the depressions on the free surface varying in depth and separating individual papilliform growths. Hyperkeratosis, moderate in degree, was most marked in the depressions. The appendages were normal. The unusual appearances were the presence of a large blood vessel or vessels running in a horizontal direction in the region of the sub-papillary plexus, or perhaps a little lower than this is usually situated. The vessel, which appeared sometimes in longitudinal and sometimes in cross section, was accompanied

by a large nerve. The writer thinks the latter suggestive perhaps on account of the claim that these nævi occur along the course of a cutaneous nerve.

Zum Wesen der Psorospermiosis Darier. K. KREIBICH. *Archiv. f. Derm. u. Syph.*, 1906, Bd. LXXX, Hft. 3, p. 367.

Two cases are reported in detail. The first a woman, æt. forty, field-hand, had suffered from the disease since her twelfth year, when it began on her hands and feet. When seen by the writer she had a pretty generalized eruption, most intense about the genital region. Histologically, the old and new lesions were typical of that affection.

The second case, also a woman, forty-five, mid-wife, developed the disease twenty-three years previously over the gastric region. During her stay in the hospital new efflorescences appeared and a microscopical examination was made of the twenty-three year old, two weeks old and more recent lesions, which agreed with the findings in the case above.

In his observations of these cases, Kreibich found that the disease began in the first one with zoster-like efflorescences which passed into typical nodules. The same thing occurred in the second case, which in form and extension was like zoster intercostalis. He therefore feels justified in looking upon Psorospermiosis Darier as an angio-neurotic affection, having a close relationship with the angio-neurotic inflammations. The vomiting and gastric disturbance present in the second case were due to an afferent irritation, which thirteen days after two attacks led to an angio-neurotic late reflex. The angio-neurotic innervation disturbance is less than in zoster for the œdema does not injure the cutis and leaves the basal layer intact. The continuous imbibition of an exudate rich in fibrinogen leads to a pathological cornification, demonstrable in areas of greatest intensity as a parakeratosis, in those of lesser as hyperkeratosis and acanthosis.

Ueber Pigment-Nævi. G. POLLIO. *Archiv. f. Derm. u. Syph.*, 1906, Bd. LXXX, Hft. 1, p. 47.

In his studies of the above subject, Pollio extended his examinations to (1) large smooth light brown pigment nævi. (2) ephelids, (3) lentigines. (4) pigmentations accompanying v. Recklinghausen's disease.

Of the first form he examined 12 smooth, relatively large pigment spots from 12 adults. He found pigment in the basal layer of the epidermis inside of the cells and in the interspinal spaces; the cells themselves were normal. In the lighter colored spots the corium was unchanged, in the deeper ones the upper layers were the seat of a pigment deposit. In one of the 12 specimens cells nests were also present in the upper part of the cutis. This case the writer thinks was incorrectly diagnosed clinically. He then studied three typical ephelids and found them to have the identical structure of the foregoing. Thirty lentigines from various portions of the covered parts of the body were

next examined, seventeen being from children. Two-thirds of them showed the typical picture of soft naevi with cell infiltration in the upper corium. The author does not discuss the question of the genesis of naevus cells, but takes occasion to remark that in some of the lentigines from children he found in places a more or less distinct connection with the epidermis. The lentigines without the cell nests were in general more intensely pigmented than the ephelides and the smooth pigment naevi and also showed an acanthosis. In the corium there were present about the vessels and scattered diffusely pigment free cells which bore no resemblance to the naevus cells. He has found it impossible to differentiate these two types clinically.

From a case of v. Recklinghausen's disease he examined a large light brown smooth spot with three darker punctiform areas and an isolated smooth dark spot which looked like an ordinary lentigo. The former showed simply pigmentation of the epidermis; the latter in addition cell nests and cords in the corium.

From the above findings the author suggests the following clinical and histological characterization of these lesions:

1. Pure pigment-naevi including
 - a. ephelides.
 - b. smaller and larger pigment-naevi (naevi pigmentosi spili S. S., en nappe).
 - c. The very small formations in v. Recklinghausen's disease.
 - D. E. Pigmented lesions described by Jadassohn, Werner, and others which have not been properly classified.
2. Soft pigment-naevi
 - a. The so-called lentigines.
 - b. The larger, verrucous hairy, etc., soft naevi.
 - c. The lentigines and larger naevi in v. Recklinghausen's disease.
 - d. Pigment-naevi in the form of lentigines with acanthosis and cellular infiltration without naevus-cell groups.

A Note on the Treatment of Simple Warts by Internal Remedies.

ARTHUR HALL. *Brit. Jour. Derm.*, 1906, Vol. XVIII, No. 3, p. 106.

To demonstrate that free purgation and not a particular drug was the essential factor in the treatment, Dr. Hall reports the following case: A girl of fourteen had hundreds of warts on the dorsa of both wrists, hands and fingers, from which she had suffered since childhood. She was very constipated, and at beginning of treatment, November 14th, she was given \mathfrak{J} ss Mist. alba t. i. d.; on November 19th it was increased to \mathfrak{J} I t. i. d.; on December 3d she was given Conf. sulphuris and Conf. sennae \mathfrak{J} I āā o. n.; on December 14th she was still costive and a change was made to Pil. aloin (gr. $\frac{1}{2}$) \bar{c} nucis vomicae (gr. $\frac{1}{4}$) II o. n. By December 21st her bowels were acting well, and the warts appeared to

be shrinking; January 4th her bowels were regular and the warts diminished; February 15th they were gone from the backs of her hands, but some remained on the fingers. By March 2d only a few shrunken ones were to be seen on the fingers. No local remedies had been applied. There is no suggestion as to the *modus operandi* of this treatment, or as to the association of simple warts with constipation.

Eigentumliches Verhalten einer transplantierten ichthyotischen Hautpartie. ERNST EITNER. *Monatsh. f. prakt. Derm.*, 1907, Bd. 44, No. 6, p. 271.

The patient was a man of twenty-four, with ichthyosis which had never troubled him to any great degree. Ten years previously, as a result of injury, a phlegmon developed over his right ankle, being most intense over the external malleolar region. This was treated surgically and to hasten healing Thiersch grafts were removed from the external and upper surfaces of both ankles, a rapid recovery following. At the time of writing the patient presented a typical ichthyosis nitida. The sites from which the grafts were taken had been replaced by smooth, non-ichthyotic scars. At the site of the phlegmon the transplanted grafts were markedly ichthyotic, while the rest of the cicatrix was smooth, and the immediately adjacent tissue which had not been involved in the phlegmonous ulceration was likewise smooth. Prior to the operation this region had not been affected, and Eitner does not believe that the local disturbance was responsible for the change, else the entire scars could have been ichthyotic. If, according to Brocq, a disturbance in the function of the cutaneous glands plays a role in the etiology of ichthyosis, then the destruction of the glandular elements in the transplanted tissue might be looked upon as a factor in the process. It is more difficult to attempt to establish a relationship between ichthyosis and some of the other views expressed as to its nature, namely, nervous disturbances or an inflammatory keratoderma having its origin in an infection or auto-intoxication.

BOOK REVIEWS.

The Principles and Practice of Dermatology. Designed for Students and Practitioners. By WILLIAM ALLEN PUSEY, A. M., M. M. D. Appleton & Co., New York and London, 1907. Pages 1000. One colored plate and 367 text illustrations.

Philadelphia and Chicago seem to be competing for the honor of producing the best and latest text-book on Dermatology. Duhring of Philadelphia in 1877 led off with his "Practical Treatise on Diseases of the Skin," which placed the American school of dermatology on that high level it has ever since maintained. Then Hyde of Chicago launched his book with the same title in 1883, and for nine years this, in its many editions, was the latest and fullest treatise on the subject. In 1902 Philadelphia was heard from again when Stelwagon's classic work, with its beautiful half-tone illustrations, came sailing down the course,

claiming its place as *the* authority in its domain. And now Chicago, in the person of Pusey, once more enters the race, to measure her strength against Philadelphia.

The book now before us for review is a good book, and a strong book; a safe guide written by a man of sound judgment and ripe experience. The qualities of the book that impress us most are the conservatism of the author; his transparent honesty; and the note of individuality that sounds from nearly every page. When the author does not know the cause of a dermatosis, he says so. If he has tried some commended treatment, and has not found it satisfactory, he says so. "It seems to me" occurs again and again. When we lay down the book we feel sure that the author has had but one object in view, to tell the truth as he believes it to be.

Though we have emphasized the personal quality of the book, we would not be understood as saying that the work of others has been ignored. On the contrary many references are given to the sources upon which much of the matter is founded. One commendable feature of the book is the way in which these references are massed as a foot note to the various subject headings. The first 166 pages of the book are given up to the consideration of the anatomy, physiology, and general pathology of the skin; to general remarks on the symptomatology, etiology, diagnosis, treatment, and to classification of diseases of the skin.

The author's extended experience in the use of X-rays, in which he was one of the pioneers, renders him specially competent to write of Roentgentherapy. He has done what was to be expected of him. The section on their use in the introductory pages of the book is excellent, as well as all references to them under the treatment of the several diseases in which they are of use.

Classification has always been a stumbling-block of the systematic writer on diseases of the skin. Our author has tackled the subject with a good deal of success. He has grouped the diseases as much as possible that have analogous symptoms, or are due to similar causes. He has created two new groups, "angio-neurotic dermatoses," and "dry, scaly, inflammatory dermatoses." Under the former are placed the exudative erythemas, urticaria, herpes, and the bullous diseases. Under the latter we find lupus erythematosus, seborrhoic dermatitis, pityriasis rosea, psoriasis, lichen planus, dermatitis exfoliativa, pityriasis rubra, and pityriasis rubra pilaris. Another good group is that of infective diseases of the skin with sub-groups of those due to pus organisms, and those due to hyphomycetes. Though it is somewhat of a shock to find the exanthemata placed among the hyperaemias, to mention but one of the surprises, still there is no good reason why they should not be there. We almost see the author with a wet towel round his head while he is writing this section. . . .

A striking and commendable feature of the book is the prefacing of many of its sections by introductory remarks in which the author freely states his position.

The vocabulary is remarkably full. Pathology is clearly and tersely given, but lacks illustrations. The diagnostic points are well put, but it seems to us that the book would be improved if a little more space were devoted to differential diagnosis. The sections on treatment are not overburdened by the mention of a multitude of remedies. This is another commendable feature, as it enables the reader readily to learn what the author considers the best to be done.

As illustrative of the general character of the book, we would cite the following:

Of high frequency currents he says: "In my experience their use has been very disappointing. I am not convinced that they are of any more value than the ordinary brush discharge from a static machine." . . . Anglo-neurotic oedema and acute circumscribed oedema are regarded as forms of urticaria. . . . Prurigo is held to be analogous to chronic urticaria in children, only

that it is not recovered from. . . . Zoster is regarded as a specific infection. . . . Eczema, our author is inclined to believe to be a simple dermatitis, not a distinct entity, but a group of symptoms that can be produced by many causes. Yet when he writes of its prognosis he states that it will depend upon the ability to remove the underlying causes. This seems to us to militate against his first position, as simple dermatitises have no underlying causes.

The vexed question of seborrhœa is settled by recognizing only the oily form. We are pleased to see that the term seborrhœal dermatitis is used instead of eczema seborrhoicum, though we may not be convinced that there is no physiological seborrhœa sicca.

We are sure that in the statement that lupus erythematosus is quite as common in this country as is lupus vulgaris is an error. The statistics of the American Dermatological Association for 1905 give 113 cases of the former to 79 of the latter. We also think it is a mistake to include under dermatitis medicamentosa the effects of the external action of drugs. Such effects would seem to fall under the caption of dermatitis venenata. We would also question the propriety of placing linear nævus under ichthyosis, although the author can cite precedent for so doing. While we would have preferred to have the name lichen ruber acuminatus used instead of pityriasis rubra pilaris, because the former is the older and equally good title, we are glad that keratosis follicularis is used instead of psorospermosis, and for the same reason.

There is a wealth of illustrations in black and white, about 300 of these being of diseases. The majority of them are excellent, though there are about 20 that might have been omitted without loss. It seems to us that the one labeled chloasma is really one of vitiligo. The concave edge of the pigmentation indicates this.

The publishers have done their work well, but the book is far too heavy. It is necessary to use coated paper to bring out the illustrations, but it is possible to use coated paper of much less weight than the paper used in this book. The index is full, but badly arranged. The object of an index is to enable one to find things readily. In the next edition, which we are sure will be soon called for, this end of the book can be easily improved.

G. T. J.

Diseases of the Skin. By DR. E. FINGER, Professor of Dermatology and Syphilis in the University of Vienna. F. Deuticke, Leipzig and Vienna. 1907. Five lithographic plates. Pages 396.

This is the first part of a Treatise on Skin and Venereal Diseases which the author has set out to write.

Without preliminary remarks upon the anatomy and physiology of the skin, and of the diagnosis and therapeutics of its diseases, our author plunges at once into the discussion of the various dermatoses that form the subject matter of the book. This seems to us commendable. The writer on general medicine or on surgery does not deem it necessary to devote space to an account of the anatomy and physiology of the body, but takes it for granted that his reader has already learned these subjects elsewhere. Why should not the writer on dermatology assume that his reader knows the anatomy and physiology of the Skin? Though such new remedies as anæsthesin, curobin, eugallol, lenigallol, and fibrolysin are commended, X-rays are given scant recognition. It would seem that our author has had little experience in the use of this powerful remedy, as what little he does say about X-rays is attributed to Freund, while the method of using them is not given.

Already our specialty is overburdened with names. It seems to us that our author has added to the confusion. We can see no adequate gain in using dermatitis toxica, for dermatitis venenata; toxic erythema, for dermatitis medica-

mentosa; trichæpithelioma papulatum multiplex, for epithelioma adenoides cysticum; and alopecia areolaris, for alopecia areata. Dermatitis radiographica is also new, but the subject is new, and as the term is a fitting one, perhaps it will win a place for itself. Dermatitis nodularis necrotica is, it seems to us, to be an improvement on those very poor and awkward ones, acnitis and folliclis.

Dermographism is discussed quite apart from urticaria, for which there is a certain amount of reason. *Ecthyma* is regarded as the same as impetigo, as it differs from the latter simply in the depth of the infection. The name *cheiropompholyx* is retained in spite of the fact that it occurs at times on the feet, and is, therefore, an improper term. Apparently it is thought to be only an eczema of the hands and not an entity, as it is placed in parenthesis after the section describing eczema of the hands. *Pemphigus* is regarded as a toxic or auto-toxic disease. *Zoster*, we are told, may be due to a specific infection, or to an inflammation conveyed to a nerve from some neighboring inflammatory disease or neoplasm. The identity of *lichen ruber acuminatus* and pityriasis rubra pilaris is maintained. In the treatment of *lichen planus* arsenic is the only drug mentioned for internal use, in spite of the fact that the remarkable efficacy of the protiodide of mercury is amply proven in many cases. Any but an accidental relationship between *lupus erythematosus* and tuberculosis is disclaimed. In the treatment of *lupus vulgaris* extirpation by surgical methods is given the first place, while curettage and scarification are advised against. *Blastomycotic dermatitis* is dismissed with scant grace, less than a single page being given to its discussion.

Though the book is written by a master of his trade in a clear and masterful manner, it is as an exposition of the views and methods of the Vienna school of dermatology that it is of chief value. Comparison with the recent text books by English, French, and American authors is distinctly to its disadvantage. They are rich in illustration, while this one has no illustrations at all, excepting a few colored lithographic plates of the pathology of some dermatoses. They are furnished with many references to journal literature showing wide reading, while this has not a single reference. Here and there the name of some authority is given, and these are nearly all of Germans. We also miss synonyms, which are almost entirely wanting, and this detracts from the usefulness of the book for the student.

G. T. J.

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THE PRESENT STATUS OF OUR KNOWLEDGE OF THE PARASITOLOGY OF SYPHILIS

OSCAR T. SCHULTZ, M. D.

(From the Pathological Laboratory of Western Reserve University, Cleveland, Ohio.)

Read before the Sixth International Dermatological Congress, New York, Sept. 9-14, 1907.

IN the two years and four months that have elapsed since the publication of Schaudinn and Hoffmann's first paper, there has appeared an immense literature dealing with the etiology of syphilis. The great majority of the references are confirmatory of Schaudinn and Hoffmann's announcement of the presence of *Spirochæta pallida* in certain of the lesions of lues. A small fraction of the work attacks the correctness of this finding, while a still smaller proportion deals with Siegel's *Cytorrhycles luis*. Enough time has gone by and enough work has been done to make possible a summary of results, and an attempt at determining what conclusions one may draw concerning the present status of our knowledge of the parasitology of syphilis.

CYTORRHYPES LUIS

Whatever may be one's views as to the correctness of Siegel's work upon the relationship of *Cytorrhycles luis* to syphilis, it does deserve some commendation, because the attempt to confirm or disprove it, resulted in the discovery of *Spirochæta pallida*. Further than this, little can be said in favor of a possible etiological relationship between *Cytorrhycles* and syphilis, or of the protozoan nature of *Cytorrhycles*. In neither respect has Siegel's work received confirmation by any large proportion of the number of investigators who have busied themselves with syphilis.

Bodies which answer to Siegel's description of *Cytorrhycles* luis, are in part blood platelets, in part cell granulations and cell degenerations. They do not exhibit true motility or undoubted evidences of multiplication. Similar bodies are seen, not only in syphilis, but also in a number of other conditions, as well as in the blood of lower animals.

OTHER ORGANISMS

Lustgarten's bacillus, DeLisle's bacillus, the numerous other bacilli described in association with syphilis, as well as the parasites of Doehle, of Clarke, of Schüller, and of Horand, may safely be dismissed without discussion.

SPIROCHÆTA PALLIDA

There remains, then, for serious consideration, only *Spirochæta pallida*. And of the factors in favor of its relationship to syphilis the first to deserve review is the question of morphology.

FACTORS IN FAVOR OF THE ETIOLOGICAL RELATIONSHIP OF SPIROCHÆTA PALLIDA

MORPHOLOGY

Has *Spirochæta pallida* morphological characteristics sufficiently marked to permit the experienced observer to distinguish between it and other spiral organisms? I think it has. Its extreme fineness, the looseness and regularity of its spirals, and its peculiar staining reaction, which makes it, at first, so difficult to see in Giemsa stained preparations, are not shared by any other organism thus far described. Further distinguishing characters are the peculiar motility and the lack of refractility in the living condition.

From *Spirochæta refringens*, with which *Spirochæta pallida* is perhaps most often associated, the latter is readily enough distinguished. In the case of the small *spirochæta* described by several observers (Mulzer, Kiolemenoglou and v. Cube, Loewenthal) in ulcerated carcinomata, there may be more difficulty. All such organisms, however, exhibit more irregularity than does *Spirochæta pallida*, and stain more readily. The spiral organism which has given me most uneasiness in making a differential diagnosis, is the small *spirochæta*, probably *Spirochæta dentium*, so frequently present in the mouth cavity. In the examination of buccal mucous patches and ulcerations, it is often apt to be confusing. It is very narrow, its spirals are fairly regular and it takes a reddish tinge with the Giemsa stain. Examined in the living state, its rotating forward and backward

locomotion, the bending and extension of its body and the peculiar wave-like undulations which pass along the body, give it a type of motility much like that of *Spirochæta pallida*. But when both organisms are present in the same smear, one becomes convinced of differences which are marked enough to permit a differential diagnosis. The small mouth organism is not quite so fine as *Spirochæta pallida*, it is much more easily seen both in stained and in fresh preparations, it is much more readily stained, and interposed between several small regular spirals will be a larger irregular one.

CONSTANT OCCURRENCE IN SYPHILLIS

Granting that it is possible to differentiate *Spirochæta pallida* from other spiral organisms, there arises the question of its frequency in the lesions of syphilis. In earlier reports, a certain percentage of undoubted primary lesions examined, gave negative results. With increased experience this percentage has constantly decreased, until to-day the results of competent observers are positive in as large a proportion of cases as are the examinations for the tubercle bacillus in undoubted tuberculous lesions. The results of one of Schaudinn's series, as published after his death, are striking. In smears made from twenty-six genital lesions, twenty-two were positive. These twenty-two cases later developed the clinical manifestations of syphilis. The four negative cases proved to be chancreoid. One is justified in concluding that *Spirochæta pallida* is constantly present in the hard chancre, no matter whether the latter is genital or extra-genital.

In condylomata, in buccal patches and in the early lesions of the cutaneous eruption, the results are equally constant. As the skin manifestations become older the organism is less frequently found. This may be due, in part, to the therapeutic treatment which the patient has received; in part, to a disappearance of the causative agent after the lesion is well established. That the organism does, however, occur in the late skin manifestations, cannot be doubted. In one of my own cases, of almost two years' duration, sections of a silver impregnated portion of the excised rupial eruption showed the spirochæta, although in very small numbers.

In the still later lesions, those of the tertiary stage, the findings are even more inconstant. The presence of the organism in Heller's syphilitic mesaortitis has been reported.

If one excepts two or three doubtful reports the gummata of acquired syphilis have yielded uniformly negative results. This is

not surprising. Although such gummata have been shown to be infectious, large quantities of material are required for successful inoculations. One is justified in believing that the etiological agent, if present at all, is present in very small numbers. I have no doubt but that silver impregnation of early small gummata, which will permit of serial sections through the entire lesion, will reveal the syphilis spirochæta. Furthermore, an entire absence of spirochæta in old necrotic gummata is to be expected. There is an exact parallel in the failure to find tubercle bacilli in old, encapsulated, caseous tubercles. An encapsulated gumma is no longer an essentially syphilitic lesion. The specific vascular change and the action of the spirochæta have resulted in caseation. If, in this necrosis, the organisms are also completely destroyed there results a chronic inflammatory formation of connective tissue due, not to living organisms, but to the presence of the necrotic material.

In the gummata of the congenital form of the disease the findings have been more encouraging. Previous to a positive case reported by me in May, 1906, before the American Association of Pathologists and Bacteriologists, I had been able to find only one other case in the literature. A considerable number of cases has been reported since. There seems, however, to be a tendency on the part of many to consider the gummata of congenital syphilis as in a group apart, and as having little in common with the gummata of the acquired disease. Such a view appears to have little in its favor. In their histology and in their genesis the congenital gummata must be considered identical with the tertiary lesions of acquired lues. The former differ only in being more rapid in production and shorter in duration. For these very reasons they offer most excellent material for a study of the presence of spirochæta in gummata.

The question of the constant occurrence of *Spirochæta pallida* has received its most brilliant answer in congenital syphilis. Here the organism has been uniformly found.

One may conclude that *Spirochæta pallida* is uniformly present in the primary and in the early secondary lesions, as well as in those of congenital syphilis. Furthermore, it has been found often enough in the late manifestations to justify the statement that it is associated with every possible lesion that may properly be considered essentially syphilitic. The constant occurrence of an organism, sharply enough characterized morphologically to permit the experienced observer to certainly recognize it, in the manifestations of a disease so varied as are those of syphilis, is a most important point

in favor of the etiological relationship of the organism. It is a point which can be invalidated only by the finding of the same organism in other diseases.

OCCURRENCE ONLY IN SYPHILIS

Reference has already been made to the presence of spirochæta, morphologically so much like *Spirochæta pallida* as to cause some difficulty in differentiation, in ulcerated carcinomata. Further investigation, however, has shown that such spirochæta can be differentiated. None of the reported cases of diseases other than syphilis, in which the syphilis spirochæta was supposed to be present, has stood, and one may conclude that *Spirochæta pallida* occurs only in lues.

RELATION TO LESIONS

The most important addition to our knowledge of syphilis and its spirochæta, after Schaudinn and Hoffman's earlier work, was the silver impregnation method, since it rendered possible a study of the relationship of the organism to the histological changes. And this study has shown, in the most conclusive way, that there is a definite relationship. Congenital material has yielded most fruitful results, and the localization of the spirochæta in hereditary syphilis satisfactorily explains the cellular degeneration, the vascular changes, the connective tissue proliferation, and the lymphoid infiltration that one considers characteristic of the disease. A similar close relationship exists between the organism and the lesions of the acquired disease. The cellular parasitism of the organism and its predilection for epithelial and endothelial cells can no longer be doubted. The cellular degeneration thus produced is the beginning of the lesion. The degeneration is followed by proliferation of connective tissue and of endothelium and by lymphoid infiltration. It is particularly the endothelium of the perivascular lymphatics which becomes involved, because it is here that the spirochætæ seem to multiply most readily. The perivascular change must of necessity lead to changes in the blood-vessel wall itself. The narrowing and obliteration of the lumina of vessels and the destruction of cells by the spirochætæ lead to the necrosis which finally occurs in the skin lesions and in those of the internal organs.

Not only does *Spirochæta pallida* bear a relationship to syphilis, expressed by the localization of the organisms in and about the lesions, but there is also, as a rule, a relationship between the type and the severity of the disease on the one hand and the number of

spirochætæ present on the other. This can be illustrated best by a comparison of the findings in three cases of congenital syphilis. In one, a child born dead in the seventh month of pregnancy, the lungs, liver, spleen and bones showed advanced lesions, and in one lung there was a gumma. Spirochætæ were fairly numerous. The mother of this case was admitted to the hospital with the copper-colored remains of an old rash. It seems reasonable to suppose that her infection occurred at conception or even before this time, while the child probably became infected very early in pregnancy. In a second case, the child died on the fourth day after birth. The lesions in the internal organs were of a more acute type, with only a slight grade of connective tissue proliferation. Spirochætæ were astonishingly numerous, producing the condition best described by the German word "Ueberschwemmung." In this case the mother developed secondary manifestations after the birth of the child, and it would appear that the infection of both the mother and the child occurred late in pregnancy. The infection of the child was so heavy that death resulted before the establishment of advanced changes. In the third case, the child began to show evidences of illness a few days after birth, but lived for four weeks. Any facts relative to infection of the mother could not be determined. The internal organs showed the characteristic changes, which were not very extensive, but of a chronic type. Spirochætæ were present in very small numbers. These three cases represent the three types of the disease that one sees most often clinically. In the first group belong cases in which the changes are extensive and chronic and death occurs in utero. In the second belong the clinically acute cases, characterized by comparatively recent changes. In the third group we can place those cases in which the disease has a more chronic course after the birth of the child. Here belong the cases that are apt to last for months or even years. The lesions are chronic, and are not so extensive as to lead to the rapid death of the child. The infection does not seem to be a very heavy one. The varying number of spirochætæ in the three cases mentioned indicates a relationship between the number of organisms, that is, between the intensity of the infection, and the pathological and clinical type of the disease.

THE ACTION OF MERCURY

There is some discrepancy in the reports dealing with the effect of the mercurial therapy upon the spirochætæ. According to Wechselmann and Loewenthal, the treatment causes the organism to

break up into a number of short individuals. Pollio and Fontana, Scholtz and others state that mercury causes a gradual disappearance of the parasites, without the production of any involution forms. Still others report the persistence of spirochætæ for some time after treatment. My own experience in this side of the subject has been too limited to be of much value. In four cases, in which treatment had caused a beginning amelioration of the papular eruption, no spirochætæ were found in sections of the excised inguinal lymph glands or of the excised skin lesions. The localization of the spirochætæ in the skin lesions being such as to indicate that they are the immediate cause of the pathological changes, one would expect a disappearance of the organisms as soon as the treatment begins to influence the eruption. The disappearance of the eruption under the action of mercury would indicate some action of the drug upon the organism itself.

Certain facts would seem to indicate a chemical affinity on the part of the spirochæta toward mercury and the other heavy metals. In material, which certainly contains spirochætæ and which has been fixed in mercury-containing fluids, it is impossible to impregnate the organisms with silver. One may theorize that some group or side-chain, which has an affinity for the heavy metals, has its affinity satisfied by the mercury of the fixing fluid and is consequently unable to take up any of the silver. Of tissue from one of my earlier cases of congenital syphilis, portions were fixed in formalin, other portions in Zenker's fluid. The formalin material, by the Levaditi method, was exceedingly rich in spirochætæ. Some of the Zenker material was then treated with silver nitrate in the same way, but no spirochætæ could be found. Believing that the failure of the silver impregnation was due to a saturation by mercury, attempts were made to reduce the mercury and thus bring the spirochætæ into view. The results were again negative. This would seem to indicate that the action of the mercury of the fixing fluid was a destructive one, causing a complete dissolution and disappearance of the spirochætæ. Further evidence in favor of the direct taking up of mercury by the spirochætæ is the fact that syphilitics are able to take mercury in larger amounts than are non-luetics. It seems justifiable to suppose that the union of parasite and mercury results in an organic mercurial compound which is much less toxic to the tissues of the syphilitic than are the salts and more ordinary albuminates of mercury to the tissues of the non-syphilitic. Because of my failure to find spirochætæ in the lesions of four cases of syphilis which had been under

treatment, and because of the theoretical considerations outlined above, I am prone to find in the beneficial therapeutic action of mercury in syphilis, further evidence of the etiological relationship of *Spirochæta pallida* to lues.

THE PRESENCE OF SPIROCHÆTA PALLIDA IN THE LESIONS OF EXPERIMENTAL SYPHILIS

There will always be some who will demand for the absolute proof of the causation of a disease by a living organism, the growth of the latter in pure culture upon artificial media and the fulfilment of all of Koch's postulates. While such absolute proof is, of course, much to be wished for, there does not seem to be much hope of its attainment in a number of diseases. We have not even been able to successfully apply Koch's laws in a number of conditions of bacterial origin. Yet very few will deny the rôle of *Bacillus lepræ* in leprosy. In the diseases of protozoan origin, the problem is even more difficult. Although a few of the protozoa—trypanosomes, amœbæ, and some spirochætæ—have been grown upon artificial media, similar successful results cannot be expected for those animal parasites which must spend a part or all of the life-cycle within living host cells. In the case of *Spirochæta pallida*, although cultures have thus far failed, successful inoculations into lower animals deserve as much weight as does the ability to grow *Bacillus typhosus* upon agar. The work of Metschnikoff and Roux and of Neisser and his associates, has demonstrated beyond a doubt that many of the monkeys, particularly the higher ones, are susceptible to syphilis when inoculated with material from human cases, and that the disease can be transmitted from one monkey to another by inoculation. In such experiments it has been shown that *Spirochæta pallida* is present in the original material, in the lesions of the animal inoculated with that material, as well as in the lesions of other animals inoculated from the first. Such results tend strongly to indicate that the organism is transmitted and propagated and that it sets up the experimental lesion. The production of a chronic interstitial keratitis in rabbits and the presence of the spirochætæ in the inflamed tissue add further proof to the same effect.

SUMMARY OF POINTS INDICATING AN ETIOLOGICAL RELATIONSHIP

The factors in favor of an etiological relationship between *Spirochæta pallida* and syphilis may be summarized thus:

1—*Spirochæta pallida* has characteristics sufficiently marked to permit its differentiation from other spiral organisms.

2—It is present in all the various manifestations of the disease.

3—It is found only in syphilis.

4—It bears a definite relationship to those histo-pathological changes which are characteristic of syphilis.

5—After the use of mercury the amelioration of the cutaneous lesions and the disappearance of the spirochætæ go fairly well hand in hand.

6—In the lesions of experimental syphilis of lower animals, *Spirochæta pallida* is present and has the same characteristics as in the human disease.

AGAINST SPIROCHÆTA PALLIDA AS THE CAUSE OF SYPHILIS

The majority of the published observations justify such conclusions as those just enumerated. A number of writers, however, for reasons which deserve consideration, hold a contrary opinion.

NEGATIVE RESULTS

One objection which has been brought forward is the failure to find *Spirochæta pallida* in a certain proportion of cases. It is asking too much to demand positive results to the extent of one hundred per cent. There will always be some failures in the making of microscopic diagnoses, no matter how gifted the worker. And the chances for failure are more than ordinarily great when working with an organism so difficult to see as *Spirochæta pallida*. In extended series there has been a progressive improvement in results as the technic became better, and as the eye became more accustomed to the object sought, until the positive percentage finally reaches one hundred, as in Schaudinn's series referred to above. In undoubted cases of syphilis, there will always be some negative results, because of the liability of human methods to err. This chance for error decreases as the experience of the observer increases. Many of the early negative results reported were due to lack of experience and to faulty technic.

Some of the failures to find the spirochætæ in supposed cases of syphilis, are no doubt due to mistaken clinical diagnoses. The dermatologist, who deals chiefly with the external manifestations of acquired syphilis, is much less apt to be wrong in his diagnosis than is the practitioner who is dealing with the internal lesions of the acquired and congenital forms of the disease. The clinical diagnosis

of hereditary lues is often wrong. The greater part of the supposedly syphilitic material with which I have worked, came from a maternity hospital where a large proportion of the births are illegitimate. In such cases one is apt to take a syphilitic history on the part of the parents for granted, and the clinician is not to be blamed for making a probable diagnosis of syphilis. Most of the cases, in which the diagnosis rested largely upon the possibility of infection in the parents, did not show the histological changes upon which the pathological diagnosis of congenital lues must rest. In these *Spirochæta pallida* was, of course, absent. When one remembers how difficult the histological diagnosis of syphilis often is, it is easy to understand why some cases of so-called congenital lues should fail to show spirochætæ. In a number of my cases, in which death occurred in from several days to three or four weeks after birth, there was present in the lungs a chronic interstitial pneumonia almost impossible to distinguish histologically from pneumonia alba. In fact, only the absence of syphilitic lesions in the other organs prevented a diagnosis of syphilitic inflammation of the lung. Cases of this type, which do not show spirochætæ, might easily be reported as cases negative for *Spirochæta pallida*. I am no longer willing to make a diagnosis of congenital lues unless I am able to demonstrate the spirochætæ in the tissues.

The comparatively small number of cases in which *Spirochæta pallida* has been found in the blood during the secondary stage, is advanced by some as a reason for doubting the etiological relationship of the organism. The production of the rash in syphilis is the same sort of a process of the formation of rose-spots in typhoid fever. Everyone knows how difficult it is to prove the presence of typhoid bacilli in the circulating blood. Large amounts of blood are required and the small number of bacilli in this amount of blood must be allowed to grow out upon artificial media. It is impossible to find the bacilli in smears made directly from the blood. It is almost equally difficult to find *Spirochæta pallida* in the circulating blood, because of the small number of organisms present in the blood at any one time.

“SILVER SPIROCHÆTÆ”

Most persistent in their objections have been W. Schulze, Friedenthal, Siegel and Saling, and they have given rise to a considerable literature dealing with the so-called “silver spirochætæ.” Their chief attack has been against the structures brought to view by the

silver method. They deny the identity of the organisms present in smears, and the spiral structures seen in sections after impregnation. The latter are nothing more than nerve fibrils, elastic fibrils and cell boundaries. While all the writers mentioned cover practically the same ground, Saling's paper is the most detailed. That the spirochætæ are nerve fibers, he attempts to show chiefly by copies of drawings of undoubted nerve fibers taken from the work of others. That these nerve fibers have anything in common with the structures that an experienced observer would designate *Spirochæta pallida*, or that there is even any close morphological resemblance, must be denied by anyone who has busied himself with the study of syphilitic material. The characteristic spiral arrangement, so different from any nerve fibers hitherto described, Saling attributes to the technic, to maceration, and to the change which he supposes syphilis causes in the nerves. His attempts to parallel the changes produced by intra-uterine autolysis with the putrefaction of the bodies of animals in air and in water are ludicrous. Control examinations of macerated and non-macerated non-syphilitic fetuses have completely disproven Saling's contention. In fifty-three fetuses and newborn infants examined by the Levaditi method, I have never seen anything, in those that were certainly not syphilitic, whether maceration was present or not, that could be at all confused with *Spirochæta pallida*. In the skin, where the Levaditi technic usually impregnates the nerve fibers better than anywhere else, the latter and spirochætæ can be seen in the same field, and I am not willing to admit that there are any grounds for confusion. In the internal organs, the Levaditi method is an even more unsuccessful means of demonstrating nerve fibers than the more commonly used histological methods of nerve impregnation. Occasionally some of the perivascular fibers are brought into view. But here again, just as in the skin, they have none of the appearances of the spirochætæ seen in luetic tissues. Saling is right in so far as he contends that most of the structures that he has illustrated are not spirochætæ. And in those illustrations which reproduce structures with small regular spirals he is very probably dealing with true spirochætæ.

BIOLOGICAL POSITION OF SPIROCHÆTA PALLIDA

A few words may be permitted concerning the biological nature of *Spirochæta pallida*. Direct observation has availed little, because of the extreme smallness of the parasite. One must depend, in great measure, upon a comparative study of other spirally shaped organ-

isms. Some of these, because of their dual nuclear structure and their undoubted longitudinal division, are certainly protozoa. Others, whose body form is fixed and for which transverse division has been described, seem to belong more properly among the spiro-bacteria. How large this latter group is remains to be determined. I am convinced of the longitudinal division of at least two of the species of spiral organisms commonly met with in the mouth. In the living condition, and in smear preparations, I have never seen undoubted evidences of the longitudinal division of *Spirochæta pallida*. Appearances which are often spoken of as intertwings, but which seem more properly to be end stages of longitudinal divisions, are frequently seen. In sections of silver-impregnated tissues, one sees appearances which cannot be interpreted otherwise than as stages of longitudinal division. In the living state the flexibility of the body and the peculiar motility are further evidences of the protozoan nature of the organism.

DIAGNOSTIC VALUE OF SPIROCHÆTA PALLIDA

I have attempted to bring together the more important factors which indicate that *Spirochæta pallida* is the cause of syphilis. As the etiological agent the organism must be of extreme importance from the diagnostic standpoint.

In the matter of pathological diagnosis, I feel sure that the presence or absence of *Spirochæta pallida* will clear up many points in the histology of syphilis, just as the finding of the tubercle bacillus in the tissues has, in many ways, revised the pathology of tuberculosis. I have already referred to the chronic interstitial pneumonia of marasmatic infants, which is often not to be distinguished from syphilitic pneumonia except by the absence of spirochætæ.

In doubtful clinical cases the presence of the organism in smears made from primary and secondary lesions, would likewise render possible a certain and positive diagnosis. Just as is the case with other microscopic diagnoses, a negative result in an individual case may be valueless. The value of a negative finding will depend, in great measure, upon the experience of the microscopist and upon the technic employed by him. Furthermore, it is well enough known that the organism may be absent entirely, or present in very small numbers, in smears, whereas tissue from the same lesion will show the spirochætæ readily. For this reason the removal of tissue and its impregnation with silver, are imperative, if smears are negative. In

the case of multiple secondary lesions, the removal of tissue for diagnostic purposes ought to be the routine procedure.

The presence of undoubted examples of *Spirochæta pallida* in smears from early primary lesions ought to influence the treatment and the clinical course of the disease. Heretofore the clinician has been dependent upon the appearance of secondary manifestations in order to establish a certain diagnosis, and, as a rule, treatment is delayed until this period. If, however, an early positive diagnosis of a primary lesion can be made with the microscope, immediate excision of the chancre, and the beginning of treatment ought to materially reduce the time required for a cure, since the removal of the chancre in its early stage will remove the chief breeding ground of the causative agent.

SUMMARY

The presence, in the various manifestations of syphilis, of a characteristic spiral organism, *Spirochæta pallida*, has been confirmed by the vast majority of those who have busied themselves with the subject.

The negative observations thus far reported are of value only in so far as they show the amount of patience and experience required for the finding and the identification of the organism.

Comparative study and direct observation lead to the belief that the parasite is protozoan in nature.

The finding of *Spirochæta pallida* in a doubtful clinical case is of the greatest diagnostic value to the clinician. Its presence in pathological material is of equal importance to the pathologist.

Because it has thus far been impossible to obtain and grow the organism in pure culture, Koch's postulates are not susceptible of proof. However, the constant presence of the parasite in the lesions of syphilis, its presence only in syphilis and not in other diseases, its definite relationship to the pathological changes, its morphological characteristics, and its presence in the lesions of experimental syphilis of lower animals, furnish sufficient evidence to establish the etiological relationship of *Spirochæta pallida* to syphilis.

REPORT ON TROPICAL DISEASES OF THE SKIN.

By W. DUBREUILH, Bordeaux.

Read by title before the Sixth International Dermatological Congress, New York, Sept. 9-14, 1907.

THE object of the reports read before a congress is to start the discussion and to induce the members present to give their opinions on the question which is proposed. As I cannot bring forward the result of any personal experience in tropical dermatosis, I think I can better fulfill my object by going over the whole field of tropical dermatosis, not to repeat what is known and tolerably certain, but to point out what is uncertain or unknown.

It may happen that some of these points are well known by those who have abundant experience of tropical diseases, but—perhaps because they are considered as commonplace—they are not clearly explained in text-books. My point of view is that of the student trying to get an idea of tropical dermatosis by reading.

Parasitic diseases, especially those which are due to large parasites, seem likely to be better known, but even there a great uncertainty prevails on many points.

A great many dipterous larvæ can prey on man in different ways. The bluebottle fly lays its eggs, or rather larvæ, in foul-smelling ulcers, and the maggots live in the matter, but not on the living tissues; they are not true parasites.

The *Sarcophila Wohlfarti* of Northern Europe and the *Lucilia Marcellaria* of South America lay their eggs in foul ulcers, in the nostrils or the ears of man, especially if ozena or otorrhea are present, and the maggots, always very numerous, eat their way through the living tissues and live there until the pupæ develop, that is during eight or ten days. Their enormous voracity, and most likely the irritant saliva they excrete, cause abundant suppuration, hemorrhages, gangrene, and often death after very few days, through suppurative meningitis. The larvæ of *Lucilia Macellaria*, or screw-worm, is well known in Central America, but is hardly mentioned elsewhere. However, Depied has quite recently observed in Tonkin a screw-worm quite similar in appearance and habits to that of America. What is then the geographical distribution of the screw-worm, and is it the same larvæ in all tropical countries?

The larvæ of the European botfly (*hypoderma bovis* and H.

Diana) who live nearly a year in the body of their host and travel therein in the most extraordinary way, have no analogue in tropical climates.

Cutaneous larvæ have been observed in Central America more than two centuries ago by La Coudamine and by many others since, among whom I may quote Justin Goudot, who first reared the fly. The larvæ found in the skin vary considerably as to their size and shape, but it appears from the papers published by Magalhaes and R. Blanchard who have most carefully studied the question that the worms known in different countries under various names are but the successive stages of development of the larva of *Dermatobia Cyani-ventris* which seems to be common all over tropical America.

The way the larvæ enter the body of their host is still unknown. Some authors mention a sharp sting in the spot where the worm is to appear later; most have noticed nothing of the sort, but in countries where mosquitoes are common, a sting can easily be overlooked amidst many others. It is most unlikely that the egg is inoculated in the skin by the mother fly, therefore the egg must be deposited on the skin or on the neighboring objects and the larva bores its way through the skin. It is most likely that it goes through its whole development in the same spot, as all those who have observed the larva on themselves have seen the lesion increase from a mere pimple to a large boil in the same place, and have seen none of the disappearances or changes of place so striking in the European bot-fly. The whole development takes place in about two months, whereas the larva of the hypoderma lives in its host nearly a year.

The points to be studied are, therefore, the exact duration of the disease and the way the larva enters the body.

Dipterous larvæ living under or in the skin have been observed almost all over Africa, but their zoological position has not been clearly established.

The best known of all is the "Ver du Cayor," found in Senegal where it has been particularly studied, formerly by Coquerel and later by Bérenger-Féraud. It is the larva of *Ochromya Anthrophaga*, and reaches its full development in a week. In this case also we ignore the way the larva gets under the skin.

The other larvæ observed in other parts of Africa seem to be different, and Gedoelst distinguishes the *Bengalia depressa* of South Africa, especially Natal, whose larva lives a fortnight, and the *Cordylobia anthropophaga* of East Africa, whose larval life lasts five or six weeks. He admits that these three species are not the

only ones and that there may be others, still unknown. As it does not appear that the flies have been reared out of the maggots taken from man, the whole history of these larvæ is still rather obscure and deserves further study.

Quite recently a new parasitic larva has been discovered in Africa, the Congo floor-maggot, the larva of the *Auchmeromya cuteola*. It lives in the crevices of the huts and comes out at night to prey on the inhabitants, sucking their blood exactly like bugs. Very little is known about it.

The chigger or sand-flea has been spreading wonderfully of late, Fifty years ago it was confined to the northern part of South America, especially Guiana and Brazil, but like *Phylloxera* and other American parasites it thrives most deplorably in the Old World. In 1872 the chigger was brought over to the West Coast of Africa and in the space of twenty years it spread over the whole continent from one ocean to the other. In 1899 it was carried to Madagascar where it has become a real pest. Quite lately it has been found in India and in China. In a very few years all tropical countries will most likely be provided with it.

Two points are still obscure in the life history of the chigger, the way the eggs are laid and the influence they seem to have in the grievous complications brought on by that parasite.

Most authors say nothing of the way the chigger lays its eggs, but it has been observed that when a mature chigger is expelled artificially or by the suppuration, it lays all its eggs at once. Wellman in a recent paper, reports that the chigger drops its eggs one by one without leaving its host, and comes out when all the eggs have been expelled. The eggs ripen successively, so that when the chigger is prematurely separated from its host and lays, all in a lump, its whole stock of eggs, they are unripe and cannot hatch. It is therefore quite useless to destroy the chiggers which have been extracted from the skin. That point could easily be ascertained by experiment.

It is generally admitted that the presence of the chigger's eggs in the wound is an unfortunate circumstance. However, nobody thinks that the eggs can hatch in the skin. Toussaint believes that the eggs contain some toxin which irritates the skin, and that they are the real cause of the many serious complications which befall the patients affected with chiggers.

The same question arises about the *Filaria Medinensis*, as the presence of embryos in the host's tissues appears to be a powerful cause of inflammation.

The treatment of Guinea worm has remained until now very much what it was in the days of Galen, rolling up the worm upon a bit of stick and drawing it out little by little, day after day. Some years ago, a surgeon of the French navy, Emily, proposed injecting a solution of corrosive sublimate, 1 to 1000, in or around the worm, thus killing it. If the skin is open, the worm can be drawn out at one sitting; if it is not, the dead worm is absorbed without any inflammation, just as a bit of aseptic catgut. Considering the gravity and duration of the Guinea worm disease and the apparent advantages of Emily's treatment it should be interesting to know, of those who have had the opportunity of trying it, what results they have obtained and what improvements they may have added to the original method.

Elephantiasis is common in hot climates and is generally ascribed to filariasis of the blood. But elephantiasis can be found in temperate climates with the same appearance; in tropical countries many people have elephantiasis without filariasis, or filariasis without elephantiasis. European elephantiasis appears to be caused by a chronic infection with streptococci which occasionally take on an increased virulence and provoke acute attacks of lymphangitis. The same process is observed in hot countries. Therefore, the part of filaria in elephantiasis is obscure and even doubtful.

Tinea imbricata or Tokelau is a disease whose clinical characteristics are well marked and easily recognized. The presence of a fungus has been observed long ago, but whereas most authors describe it as a trichophyton and Nieuwenhuis reports having cultivated and successfully inoculated a fungus closely allied to the trichophyta, Triboudeau has found an aspergillus with characteristic fructification. I, myself, and also Wehmer, have found the same reproductive organ in scabs supplied by Triboudeau. Since then Triboudeau tells me that he has found the same fungus in other cases and has cultivated an aspergillus. It is most desirable that researches should be made on a large number of patients to ascertain if that aspergillus is constant, and also inoculations made with the cultures, but such are only likely to succeed in hot countries.

In several tropical countries are found diseases whose principal feature is the discoloration of the skin, and which are generally ascribed to fungi. They may be joined under the heading of dyschromic dermatomycosis. We may mention the following which seem to be distinct, but their list is perhaps not complete.

1st—The carati of Columbia with its numerous varieties of

color, white, black, blue, red, violet, etc. Montoya has described in them fungi of the genus *aspergillus* belonging to different species, according to the color of the carati. He has cultivated them from the skin of his patients and even found some of this fungi in the waters of the country whence the patients came.

2d—The Pinto or Mal del Pinto of Mexico.

3d—The “achromie parasitaire à recrudescence estival,” observed in Indo-China by Jeanselme, who found in it a fungus very like that of the Pityriasis versicolor.

4th—*Tinea albigena* observed in Java by Nieuwenhuis who found in it a fungus, and which appears to be the same disease found in Annam by Jeanselme under the name of Khi-Huen.

5th—The case described by Legrain in North Africa, “Pinta d’ Afrique.”

It is very difficult to have a clear idea of these diseases, especially of the American ones. Those who have written on them have made general descriptions, from a number of cases, descriptions which are more or less biased by the personal opinions of the author upon the nature of the disease. The result is most confusing for the reader who has not seen the disease. It would be a great deal better to publish a certain number of cases, carefully described, followed up during as long a time as possible, with photographs and a report of microscopical examinations. Fifty cases, well taken, would give a better idea of the carati than as many general—and conflicting—descriptions.

The history of yaws was very confusing some years ago, because the vernacular names of yaws, pian, parangi, boubas, etc., were used for various diseases, among which was often itch or syphilis. Recent authors have made the question clearer and have shown that there is a specific and highly contagious disease, quite distinct from syphilis for which the name of yaws or pian must be preserved. There are, however, some points which require being cleared.

Also Castellani has found in yaws a *spirochæta* quite identical with that of syphilis in shape and size.

Breda has described a disease occurring in Brazil where it is called boubas, the same name as is used for yaws in Brazil, but the disease is, however, quite another one. The similarity of names must not create a confusion as to the nature of the diseases.

Verruga peruana is an infectious disease quite special to certain parts of Peru. The most characteristic lesion of the disease and that which has given it its name, is an eruption of vascular warts of the

size of a pin head, or hazel-nut. These bright red, soft nodules often ulcerate and bleed most abundantly; their ordinary seat is the skin of the limbs, but they may be found everywhere else, and also in deep parts, in the muscles, the intestines, the liver, etc. The course of the disease is generally a slow one, beginning with fever, pains in the limbs, and anemia, which subside when the eruption comes out, but which may recur; the eruption may also recur several times, and the disease may last many months. At any time, either before or after the eruption, the general symptoms may acquire a great intensity, with high fever, excessive pains in the limbs, incessant vomiting, diarrhœa and rapid anemia, terminating in death after a few weeks. This form is called Oroya fever because it was observed especially among the men working on the Oroya railway line.

The latest authors on Verruga peruana, Odriozola and Escomel, have carefully studied the clinical and pathological manifestations and have described a bacillus which is to be found in the blood and to which they attribute the disease. The proofs brought forward in favor of that bacillus are not convincing and the study of the etiological conditions in which the disease occurs, brings out the most striking analogies with malaria.

The verruga occurs in certain valleys of Peru called quebradas, those which run perpendicularly to the coast and to the Andes, are cool, well ventilated and generally free from the disease, except in certain parts where a curve in the direction prevents proper ventilation. The verruga is common in the quebradas which are parallel to the coast and are hot and sultry. The infected valleys are all between 30 and 120 kilometers from the coast, and between 400 and 3000 meters altitude. Outside of these limits, in Lima for instance, are many imported cases, but the disease does not spread.

It must be remarked that it is exactly within the same limits and in the same valleys that malaria occurs most, except that malaria comes down a little nearer to the sea level.

Verruga attacks especially newcomers, and the inhabitants of the infected valleys are generally immune or have only benign forms of the disease. Cattle and fowl are often attacked.

The disease is popularly ascribed to drinking the water of certain localities, and one of the torrents has so bad a reputation that it is called Aqua de Verrugas; it was in a locality of that valley that during the construction of the Oroya railway, thousands of men were attacked by the dangerous form called "Oroya fever." Travelers going through these localities have taken the disease after a single

night, or a few hours sojourn, not having drunk a drop of the water of the place; others having drunk the water have remained immune. Moreover, it is difficult to explain how the water of a torrent could be dangerous in one place and not in another a few miles lower; how the water of the Rímac which goes through Lima can be safely drunk at Lima and be dangerous a few miles up stream.

The infected valleys are particularly dangerous in spring after the annual flooding of the torrents. The danger is increased by digging the soil, and the construction of the railway has been the circumstance which brought the Oroya fever into notice.

The verruga is not contagious and is not transmitted from man to man, except by inoculation, as in the case of Daniel Carrion. The numerous patients who come down to Lima to be treated have never given their disease to their neighbors and the malady can only be taken in certain localities.

All these etiological circumstances, carefully studied by Odriozola, are most strikingly similar to those of malaria, and may even be said to be identical. It is, therefore, most likely that the verruga peruana is caused by some parasite of the blood, apparently some protozoon which is carried from one man to another by some special sort of mosquito living in the hot valleys of the Andes, and breeding in the pools left by the torrents after their flooding.

The methods of work which have given so good results in the study of malaria, should be tried in the case of verruga.

PERIPHERAL SYPHILITIC ARTERITIS.

By HERMANN G. KLOTZ, M.D., of New York.

Read before the Sixth International Dermatological Congress, New York, Sept. 9-14, 1907.

CLINICAL and histological research of changes in the blood-vessels and particularly of the arteries directly due to syphilis for a time was carried on almost exclusively on the arteries of the brain. Although much dissension has existed in regard to the histological detail, the fact that the syphilitic virus may directly produce an inflammatory process in the walls of the arteries, leading either to dilatation and the formation of aneurysma or to obliteration, has now been generally recognized and the knowledge of syphilitic arteritis of the brain and its consequences is firmly established not only among syphilidologists and neurologists, but also among the general practitioners. The same can be asserted with regard to the syphilitic affections of the aorta and its larger branches; they are everywhere acknowledged as the principal and most frequent cause of aneurysma. Less well known even among those who make a more special study of syphilis and skin diseases is the syphilitic arteritis of the extremities. It is true that quite a number of such cases have been reported and that several authors like Lang, Neumann, Mauriac and others have duly recognized the importance of such an arteritis, but generally the text-books have not taken much notice of it. From its representation in literature the affection would certainly appear to be a rare one, but some authors, among them quite recently Merk, feel convinced that syphilitic arteritis of the extremities occurs frequently enough, but is either not recognized at all or reported under other names, especially under that of Raynaud's disease. In a Paris thesis of 1902, entitled "*Contribution à l'Étude des Artérites Syphilitiques des Membres*," Maurice Durandard has written an excellent monograph on the subject which deserves to be more widely known. Durandard reports one case of his own observation from the clinic of Dieulafoy, gives more or less fully the histories of sixteen cases mostly from the French literature and refers more briefly or incidentally to other cases from literature. In the different chapters he treats the history, the pathological anatomy, the symptomatology, the clinical forms, diagnosis, prognosis and treatment of this affection. He has given particular prominence to certain motory disturbances which heretofore had more or less escaped the attention of

observers, especially to intermittent limping (claudication intermittente). The arteries most frequently affected were the subclavian, brachial, radial, ulnar, femoral, tibialis antica and postica, peroneal and dorsalis pedis. Although Durandard cites a case of Leudet in which branches of the superficial temporal arteries were affected, and reports in full the very important case of D'Ornellas, he does not emphasize the arteritis of smaller peripheral branches. Still, already in 1884 Hutchinson had insisted on the probability that such an arteritis might begin in the small peripheral blood-vessels and ascend to the larger branches, in connection with the publication of a case under the title: "A Case of Syphilis in which the Fingers of One Hand Became Cold and Livid. Suspected Arteritis." Lang, in a more theoretical manner, had considered the possibilities of such a peripheral arteritis. Hutchinson's case and his claim of the existence of an ascending peripheral arteritis is generally mentioned wherever the subject has been considered at all, but that is about all that can be found in the literature as far as I have been able to ascertain, although the case of D'Ornellas, which was published in the *Annales de Dermatol* for 1888 and has been widely quoted, demonstrates in the most perfect manner the correctness of Hutchinson's claim. The history of the case is as follows:

A man, forty-five years of age, married and the father of three healthy children, admitted to have had a chancre of the preputial fold twenty years ago, which had healed within three weeks without any treatment, and was not followed by any secondary or other symptoms. At the time he came under observation, however, he presented some lesions of the tongue of clearly tertiary syphilitic character. He stated that six weeks ago the four fingers of the left hand had constantly felt cold, greatly aggravated in cold weather, so that he had to wear woollen gloves whenever he went outside. Then the soft parts on the ulnar aspect of the diseased finger tip of the left middle finger became gangrenous. Along the course of the collateral arteries of the diseased finger hard cords could be distinctly felt, and the radial pulse was weaker than on the other hand, although perfectly perceptible. Later on gangrenous spots appeared on the radial aspect of the ring finger, accompanied by intense pain, particularly at night. Under specific treatment (iodide of potassium) the fingers as well as the ulcers of the tongue healed within several weeks. The patient then went into the country and against the advice of the physician discontinued all treatment. He remained well for seven or eight weeks; then the very same

fingers again became affected, but much more extensively and in a more aggravated manner. The pain and the sensation of cold extended to the lower third of the forearm and within six days the middle finger became mummified as far as the proximal third of the first phalanx. D'Ornellas could now establish the entire absence of the arterial pulse in the left radial artery, in the palmar arch, the ulnar and the lower third of the brachial arteries as well as the fact that the vessels were obliterated and indurated, giving the sensation of a hard cord to the touch. In the middle third of the brachial artery the pulsations were weak, but in the axillary they were perfectly normal. Under renewed specific treatment, this time by inunctions of mercury and iodides, the fingers healed, of course with the loss of the gangrenous portions. Some time afterwards the patient was again examined; after continued treatment the arteritis and obliteration of the brachialis had not advanced farther upwards.

There can hardly be any doubt that during the first period of the patient's sickness the syphilitic arteritis was restricted to peripheral branches of the vessels; the second period shows an affection of the larger branches similar to most of the cases reported by Durandard and those scattered through the literature. It seems by no means improbable that many of these cases did not come under observation until a later stage of the process had been reached; this is probably the reason why the peripheral arteritis is usually overlooked.

Almost unique is the case of Leudet, which was first published in 1874 in the *Clinique Médicale de L'Hôtel-Dieu de Rouen*, and again reported in 1884 to the *Congrès de l'Association Française pour l'Avancement des Sciences* at Blois. The arteritis became manifest in a circumscribed portion of the anterior frontal branch of the left superficial temporalis, and produced cessation of pulsation. The right side became similarly affected a few days later; then the arteritis developed symmetrically for a certain time, but healed later under the influence of general treatment with iodides and mercury. Leudet could follow on his patient all the phases of syphilitic arteritis: Induration, obliteration, diminution and cessation of the arterial pulse. He could also follow the re-establishment of the circulation, the return of pulsation and definite restoration.

Cases resembling that of Hutchinson and published as examples of peripheral syphilitic arteritis seem to be extremely rare. Although I have been interested in the subject for over twenty years and have closely watched for such cases, I know only of very few.

This is the more remarkable as I have personally observed three. The first one was seen in 1889 and was published in the August issue of the American Journal of the Medical Sciences under the title, adopted from Hutchinson: "A Case of Syphilis in which Several Fingers of both Hands Became Cold and Livid; Suspected Arteritis."

The patient was a man, twenty-five years of age. He had had a chancre three years ago and had been irregularly treated, but the disease seems to have been quite severe, since rather early he had large ulcers on the back, of which characteristic scars remained. At the time of the first examination ulcers had again broken out on the back, penis, nose and scalp. About a month ago he had noticed that the tip of the right little finger was white and somewhat shrivelled in the morning. After three days the finger became blue and very painful at the tip. Soon after the ring finger of the same hand and a few days later the middle and the little finger of the left hand underwent similar changes. On examination all the affected fingers presented a decidedly bluish color and a somewhat mottled appearance, and were distinctly colder than the other fingers, which presented a perfectly natural appearance. On the affected fingers the free border of the nails is remarkably white, next to it a zone of fine reddish streaks surrounds the nail, which itself looks dark blue, like the entire distal phalanx. This discoloration extends over the whole finger, diminishing somewhat towards the knuckles. In the center of the tip, close to the nail, on the left little finger the epidermis over a well-defined spot is thickened, the surface being brittle and slightly scaling. On both wrists the radial as well as the ulnar pulse can be distinctly felt. The pain in the fingers, which had been quite intense and continuous, disappeared after a week of mixed treatment, and six weeks afterwards the affected fingers had resumed their normal appearance and temperature. In the morning they still felt cold for a while and in lower temperature they became more easily blue and cold than those which were not affected; the syphilitic ulcers were also healed. Thickened portions of the epidermis had previously become detached on some of the affected fingers. The further history of the patient is not known; he was addicted to irregular habits and from a newspaper notice I believe that he died not very long afterwards.

The second case has been published by Dr. Geo. W. Jacoby in a paper entitled: "A Contribution to the Diagnosis of Raynaud's Disease," but not as a case properly assigned to that disease. (*N. Y. M. J.*, Feb. 1891.)

The patient was a merchant, thirty-seven years of age. He

was infected with syphilis seventeen years previously, gave a clear history of several syphilitic manifestations during the three years following the infection and had undergone methodical treatment during this time. The symptoms in this case were almost identical with those of the one just described and with those of Hutchinson's patient. Both hands were affected: on the right one the three last fingers were most involved, being livid and cold at the ends and slightly swollen, extending upwards to the metacarpo-phalangeal articulations, but most marked at the distal ends. The difference in the temperature of the affected and of the healthy fingers was estimated to be at least 10° F. Pulsation was well marked in the radial and ulnar arteries of both hands. The pains were bearable during the day but so intense during the night that the patient was unable to sleep. After a long continued treatment, partly in Hot Springs, Ark., the hands assumed a perfectly normal appearance, but were still getting cold very easily.

This patient was seen by me on several occasions during the active period of the affection and from time to time since, as late as July, 1907. The tips of the affected fingers are still slightly pale, somewhat attenuated; the epidermis over the tips is somewhat thickened and hard; in cold weather the finger tips become quite painful, but there has not been any decided change or relapse since 1890.

The third case has been briefly reported by me in the Transactions of the New York Dermatological Society for 1895 (*JOURNAL OF CUTAN. DISEASES* XIII. p. 170). The patient, an agent, fifty years of age and personally known to me for years, had contracted syphilis twenty-eight years ago and at that time had been amply treated for several years, although mostly internally, and had not had any symptoms of the disease for twenty-five years. After occasional free indulgence in beer, much worry and exacting work he had noticed for some time that his right arm was not as vigorous as formerly and that certain movements became rather awkward. About a week ago he had noticed that the right index finger became cold and blue, with impairment of its sensibility and quite severe pains, principally at night; the right thumb was similarly affected, but not nearly so severely. The index finger had a bluish, somewhat mottled color, felt decidedly cold to the touch, the nail appeared pale and livid, with longitudinal hemorrhagic lines near the lunula. The radial pulse was entirely normal. All these symptoms disappeared within a few weeks under the use of increasing doses of iodide of potassium. I have seen the patient on and off since. He has not

had any similar symptoms again, but in very cold weather the affected fingers get cold and painful.

It must be noticed that in these three cases and in that of Hutchinson gangrene was not in evidence except for the superficial necrosis and subsequent detachment of circumscribed patches of thickened epidermis; specific treatment had been commenced while the affection was in an early stage and while no damage had yet been done which was beyond repair. That gangrene would inevitably have followed, if the conditions had been allowed to go on, seems hardly doubtful in the face of the experience with other cases of syphilitic arteritis of the extremities. Most of these cases apparently have not come under observation until gangrene had actually taken place, but in some of them we have a history of several separate attacks following one another on different members, exhibiting the same early symptoms as in the cases described before.

Some such cases have been published as cases of Raynaud's disease, and syphilis is usually named among those affections which are considered as producing Raynaud's disease. M. Sée in *Bésnier's Pratique Dermatologique* takes exception to this view and is inclined to side with those who insist on the purely syphilitic character of the obliterating arteritis. Morgan designates his case as one of Raynaud's disease in an individual thoroughly tainted by syphilitic poison, others recognize a syphilitic arteritis with a superadded element of vasomotor spasm. Such interpretations can be explained only by the arbitrary and indiscriminate abuse of the term Raynaud's disease, which has been unfavorably commented upon by several writers, among them particularly by G. W. Jacoby. But if you follow Raynaud more closely into his own writings, you will find that in reality he professes to describe a new disease which is characterized by paroxysmal attacks, separated by periods of apparently complete health. During these attacks, without any apparent anatomical changes of the blood-vessels themselves, certain local changes (local syncope, local asphyxia and eventually dry gangrene) are produced on symmetrical peripheral portions of the extremities (fingers and toes). These attacks own for their cause some error as to the innervation of the capillary vessels (vasomotor disturbance). Monro in his monograph on Raynaud's disease, insists on the essential character of the paroxysm; bilateral symmetry he considers as very important but not as essential; if this feature be lacking, the other evidence must be very strong. Instead of restricting the use of the term Raynaud's disease to cases which really

present such a clinical picture, the name has been applied without any further investigation to almost all kinds of instances of symmetrical and non-symmetrical peripheral dry gangrene, or to cases in which some of the local symptoms were present without any of the other important clinical features. Raynaud's explanation of this new disease by a vasomotor disturbance, as far as I understand, has by no means been universally accepted, although any other definite explanation, applying to all cases, has not been established. Therefore the question whether syphilis itself could produce such paroxysmal attacks, cannot be positively answered at the present time.

It certainly cannot be denied that the local symptoms of peripheral syphilitic arteritis are indeed similar to or almost identical with those of Raynaud's disease. This appears quite natural because in both instances we have to do with a more or less complete interruption of the flow of arterial blood into certain portions of the extremities (local syncope) and the subsequent stagnation of insufficiently oxidized blood in the widened capillaries (local asphyxia). If these conditions persist for some time, nutrition will cease and mortification of tissue must necessarily follow; gangrene, however, is not an inevitable result in every instance either of Raynaud's disease or of peripheral syphilitic arteritis. The cause of the obstruction of the arterial flow (the spasm in Raynaud's disease) may cease before gangrene is accomplished, or in arteritis the occlusion of the lumen of the vessel may take place very gradually or the conditions for the establishment of collateral circulation may be particularly favorable. However in arteritis occasionally the local process may run through all the stages to gangrene in a very abrupt manner probably in consequence of thrombosis in the vessel which is undergoing obliteration. In Raynaud's disease the cause evidently is not a permanent or continuous one, but accompanies the paroxysm and ceases with it; the local changes may entirely disappear and perfect restitution may take place if no other attacks follow. But if the attacks repeat themselves even in more or less protracted intervals, the local syncope and local asphyxia will become permanent and in due time the final stage of gangrene will be established. In both instances symmetrical portions of the body, usually the extreme ends of the extremities or the ears or the tip of the nose may become the seat of the local changes, but as a rule we must expect the simultaneous affection of symmetrical portions in Raynaud's disease where we have to assume that some general cause produces the paroxysmal occlusion. In peripheral arteritis symmetrical parts are not affected.

In nearly all cases on close scrutiny it will be found that the trouble began in one, or perhaps two, fingers or toes of one hand or of one foot, that only after a few days other fingers or toes of the same extremity become similarly affected. The corresponding hand or foot may show the first signs only after the lapse of some days or weeks, or there may be intervals of months and even years between the attacks of the different members. In this way the gradual spreading of the process may simulate in a way the repeated attacks of Raynaud's disease, however, without the appearance of a true paroxysm. Pain and the sensation of cold usually do not furnish any means for differentiation of the two affections.

In cases where the larger branches of the arteries of the members have become the seat of the inflammation, the condition of the pulse, particularly its cessation on localities where it usually can be felt, and the demonstration of the obliterated vessel itself in the shape of an indurated cord may indeed greatly facilitate the diagnosis and allow at once the exclusion of Raynaud's disease, since the absence of occlusion of the blood-vessels by organic alterations of their walls has been declared an important criterion by Raynaud himself. But if we have to do with peripheral arteries of small caliber such as digital arteries, it seems doubtful whether we can always expect to find them accessible to the touch, to feel them as thickened, hard cords, or to demonstrate with absolute certainty the presence, diminution or absence of pulsation. Therefore this symptom cannot be considered absolutely as a distinguishing feature between Raynaud's disease and peripheral syphilitic arteritis. However, in addition to the characteristic features of the local symptoms in the differentiation between the two affections, the clinical character and the development have to be considered: in Raynaud's disease the paroxysmal attacks separated by free intervals, in arteritis the continued insidious and chronic advance of the process, and in most instances the beneficial influence of specific treatment. In regard to the effect of mercury and iodides Durandard has rightfully emphasized that in some cases of absolutely undoubted syphilitic origin of the arteritis, principally in the fulminant cases which rapidly lead to gangrenè, specific treatment has been without the slightest beneficial effect. That in case of accomplished mortification of tissue treatment cannot have any influence on the portions already destroyed, but at best can only bring the process to a stop, is almost unnecessary to mention. Nevertheless the influence which energetic specific treatment has been demonstrated to exert in the peripheral cases as well as in affections of the larger branches of the arteries of the extremities renders the

whole question one of great practical importance, the more so as any reliable treatment of Raynaud's disease can hardly be claimed to exist. Therefore, if the diagnosis of this affection is sustained in cases of syphilitic arteritis, valuable time is liable to be lost in the application of the galvanic current and other methods of treatment which have been recommended in large numbers. Durandard states that in comparison with other forms of arteritis, the prognosis of syphilitic arteritis is comparatively benign. Indeed there is hope in the beginning to successfully treat and to cure it. But to do this it is necessary to think of the possibility of an arteritis of specific origin. However, how can we expect the general practitioner or even the specialist to think of such an affection until it becomes more generally acknowledged, emphasized and taught in clinics and in text-books, that a syphilitic affection of the peripheral and superficial arteries does occur as a distinct affection, that it can produce certain local symptoms which, resembling to a certain extent the local symptoms of Raynaud's disease, sooner or later may lead to peripheral gangrene. Then it will become the duty of the physician, whenever he finds cold, livid and painful fingers or toes, not to rush to the diagnosis of Raynaud's disease which at best is a somewhat mysterious entity, but to consider the possibility of syphilitic arteritis. The establishment of a clear history of previous infection with syphilis, or the demonstration of the actual presence of other undoubted symptoms of syphilis as in D'Ornellas's and in my first case, will strongly support the diagnosis of syphilitic arteritis. The absence of either, however, must not exclude such a diagnosis. It is only too well known how little reliance can be placed on the assurance of the patients; in a case published by Nash (*JOURN. OF CUTAN. DIS.* XIII. 297, 1895), the patient, after repeated denials, finally admitted that he had had a chancre four years ago and had been treated for three months. The absence of concomitant syphilitic symptoms is of even less significance and must be rather expected in cases where the infection has preceded the arteritis by many years, so twenty in D'Ornellas's, seventeen in Jacoby's and twenty-eight in my third case. In D'Ornellas's case the presence of a typical tertiary lesion of the tongue largely suggested the administration of specific treatment. In doubtful cases, therefore, the physician will be justified in the immediate commencement of antisymphilitic treatment. In the face of the gravity of the affection it seems advisable to apply energetic measures at once; Durandard states that Dieulafoy insists on mercurial injections of the biniodide, and that it is useless to give iodides at the same time.

How important it is that the possibilities of the existence of peripheral syphilitic arteritis should be more widely known, may be judged from the fact that Hutchinson's case had been under his observation twenty years before he published it. Although in his experience almost unique, he had felt unable to offer any satisfactory conjecture as regards diagnosis, until on reading over the notes, it occurred to him that the cause of the symptoms must have been inflammatory occlusion of the arteries of the hand. D'Ornellas, who evidently had not been cognizant of Hutchinson's case, says that he never heard anybody speak of such localized arteritis in the extremities, and that Verneuil, Fournier, Duplay and other eminent physicians assured him that they had never seen a similar case, concurring at the same time in his diagnosis.

When I met with my first case I, fortunately, was acquainted with Hutchinson's publication, and Jacoby again recognized in his case the exact counterpart of my first case, which had been published only a short time before. I myself happened to come across Hutchinson's article while in search of information in regard to a similar form of circumscribed gangrene, for which I had not been able to find any other explanation but the sudden suppression of the blood supply through occlusion of small branches of arteries, probably due to an obliterating inflammation of their walls. In several instances, during close observation of the patients, I had been surprised by the sudden appearance, within areas of perfectly healthy skin, of round or oval patches of superficial gangrene of the skin. They were restricted to the malleolar region and depending parts of the extremity in general. In time the eschar became detached, leaving an ulcer which in shape and particularly in the configuration of the exposed surface bore great resemblance to the round ulcer of the stomach. I was absolutely sure that the skin on these spots had been healthy and free of any discoloration, inflammatory or gummatous infiltration which we are used to see precede and give rise to syphilitic ulcers. Here the surrounding skin and the immediate borders were smooth, without any infiltration or even redness, there was no undermining or tendency to progress in the periphery. The ulcers themselves were extremely painful, sluggish, without any tendency either to heal or to get worse; they were apparently not affected by specific general treatment. At times a new epidermis would form over the surface, only to soon break down again. In later years I have not again had the opportunity of watching so closely the unheralded appearance of the gangrenous patches and

their detachment before the appearance of the ulcers, but I have not infrequently seen ulcers of the character described before on portions of the lower extremities which evidently are supplied by terminal branches of the arteries. I submitted these observations exactly twenty years ago to the Section on Dermatology and Syphilography of the Ninth International Medical Congress, held at Washington, D. C., in September of 1887. Perhaps they are of more interest now in the light of recent discoveries and observations.

REPORT OF 800 DERMATOLOGICAL CASES TREATED
WITH X-RAY AND HIGH FREQUENCY CURRENTS
AT THE MOUNT SINAI HOSPITAL. (Dr. Lustgarten's
Clinic.)

By SAMUEL STERN, M.D.

Read before the Sixth International Dermatological Congress, New York, September 9-14, 1907.

THE subject of "Radiotherapy" is one that is of extreme interest to all dermatologists. It is one of the youngest branches of medical science, and for the short period of its existence has created more dispute and occupied a larger part of our medical literature than probably any other branch of medicine.

It has practically divided up dermatologists into a number of factions, running all the way from the ultra radicals who advocate its use in every form of skin diseases, to the ultra conservatives who almost entirely condemn it.

The only way to determine which faction is correct is by continued experiments and the collecting of carefully compiled statistics as reported by reliable observers. This is a very difficult matter, as we often find very much exaggerated, and occasionally absolutely ridiculous, claims published in our medical literature by men who rush into print with all sorts of wonderful cures without waiting to see whether these cures will stand the test of time or are merely temporary improvements.

Often they are misguided themselves, only to discover this fact too late to retract their claims, and unfortunately they do not take the trouble or do not think it of sufficient importance to amend their reports and acknowledge their error. Probably some are not misguided as much as they are misleading, to satisfy their craving for notoriety. Others do not appreciate the fact that their failures may

be due to faulty technique or imperfect apparatus. In a number of instances, again, miracles are probably performed as the result of wrong diagnoses. In fact, there are so many things to be considered in determining the respective standing of Radiotherapy in dermatology that the task is indeed a very difficult one.

That this standing is a very important one is beyond question. We are to-day in a position—thanks to the aid of Radiotherapy—to benefit and even cure a large number of chronic cases, a number of which, such as Mycosis Fungoides, Rhinoscleroma, etc., were not so very long ago regarded as practically hopeless.

The manner in which the X-ray does its work is still in dispute. Its ultimate action is that of a destructive agent. It will destroy animal tissue, and probably the fundamental basis of its beneficial effects in dermatology is due to the fact that diseased tissue has a much lower vitality and is more rapidly destroyed than healthy tissue. The parts of the tissue primarily affected are the cellular elements, which undergo a slow degeneration; while the connective and elastic tissues are only affected as the result of this cell disintegration. The bacterioidal effects of the X-ray are probably worthy of very little consideration.

Sir Oliver Lodge¹ considers that the destructive effects of the rays are secondary, and are due to ultra-violet light and to the chemical or ionizing action of the rays upon the tissues or upon air in immediate contact with the exposed surface. That is, the rays have an oxidizing action.

Bordier² showed that the X-rays have an effect on the phenomena of osmosis, and that the consequent interference with the molecular changes is followed by disturbances of nutrition and inflammation.

Holzknacht³ divides the various tissues according to their susceptibility to the X-ray, in the following order:

1. Very sensitive: lymphoid tissue, the skin modified by psoriasis and mycosis fungoides.
2. Sensitive: Skin modified by inflammation—acne, sycosis, lupus, and epitheliomatous tissue.
3. Moderately sensitive: Healthy epidermis and its appendages.
4. Very little sensitive: Connective tissue vessels, et cetera.

I think we may add, as recent developments have shown, sperma-

¹ *Bristol Medico-Chirurgical Journal*, Vol. 205.

² *Med. Electrol. and Radiol.* VII., 72.

³ *Arch. d'Electric. Med.*, Jan. 10-25, 1905 (Abstract in *Med. Electrol. and Radiol.*, VI., 49).

tozoa and rhinoscleroma to the category of very sensitive, and the various forms of eczema to the sensitive class.

The manner in which the high-frequency spark does its work is of an entirely different nature. Given in mild doses and through various forms of vacuum tubes, it has a gently-stimulating, anti-pruritic action; and in stronger doses, especially if applied through carbon or metallic electrodes, it has a cauterant, destructive action, not unlike that of a thermo-cautery, but much more easily managed and the dosage far better regulated.

At the Mt. Sinai Hospital of this city (Dr. Lustgarten's Clinic) we have treated during the past three years about 800 dermatological cases with X-rays and high frequency currents. The object of this paper is to give a form of statistical report as to the results accomplished in these cases. Time does not permit me to go into any lengthy detail, so I will divide them under different headings and briefly report upon them.

Epithelioma. The longer we treat epithelioma with radiant energy, the more we realize that our success depends a great deal upon the proper choice of cases. The man who will depend upon this form of treatment as a matter of routine is doomed to a great many disappointments. There is no question as to the value of the method in suitable cases, but there is also no question as to its failure in improperly chosen ones. It is very hard to lay down any fixed or definite rules as to the choice of cases. Experience is the most important factor. As a general rule, it might be said that the lesions best adapted for radiotherapy are those which are situated on the surface of the epidermis. Deeper-seated, nodular epitheliomas are best treated by other methods. Small, nodular epitheliomas, situated on the surface of the skin, can often be readily destroyed by a few applications of the high-frequency spark. The *modus operandi* is to use a spark strong enough to destroy the lesion and then to wait until the scab formed has fallen off—probably two or three weeks—and to repeat the operation if necessary. The best electrode for this purpose is the one first suggested to me by Dr. Lustgarten, consisting of an ordinary lead pencil sharpened on both ends, with a piece of lead foil around one end fitted into a handle.

Large unindurated epitheliomas are best treated with the X-ray. In large epitheliomas with indurated borders, we have found most satisfaction in destroying the borders with the high-frequency spark, and then treating them with the X-ray. This combination of the two methods is probably the one we most resort to. We often find that epitheliomas will improve up to a certain point

under X-ray treatment, and then come to a standstill, when probably a few applications of the high-frequency spark will bring about a cure.

We have treated 85 cases of epithelioma by these methods. Out of these, 45 were clinically cured; one was referred for other treatment; some deserted before treatment had a fair chance; others were lost track of. It is extremely difficult to keep in touch for any length of time with patients treated in an out-door patient department of a hospital.

Carcinoma. We have had a large number of deep-seated recurrent carcinomas referred to us for X-ray treatment, but as these are not dermatological cases proper, I will not dwell upon them, simply stating that we have often had encouraging results for a while, only to be disappointed in the end. Personally, I have never seen a deep-seated internal carcinoma cured with the X-ray.

Sarcoma. The results accomplished in various types of sarcoma are somewhat more encouraging. Occasionally we get startling results. The following case is one of the most interesting: A. R., female, aged 21. Was referred to the clinic on August 1, 1906, by the surgical division, with the following history. Three years ago she had sarcoma of the right scapula, which was removed by Dr. Lilienthal. About five months ago she noticed a swelling behind the right ear, which began to increase rapidly until when operated upon on July 15, 1906, it was the size of a hen's egg. Operation was performed by Dr. Elsberg, who found the growth inoperable. A small section was removed for pathological examination, and the diagnosis of "Metastatic perforating sarcoma of the dura," was established. X-ray treatment was begun September 19. After sixteen treatments her condition was very much improved. The pain had entirely disappeared and there was hardly any sign of the tumor left. Treatment was discontinued for a while. On October 8 treatment was begun again; between that date and November 19 she had twelve additional X-ray exposures, with the astonishing result of the complete disappearance of the tumor. Unfortunately, somewhat later, she developed metastases in the lungs, which rapidly proved fatal.

In two cases of sarcoma hæmorrhagica and two cases of sarcomatosis cutis pigmentosus (Kaposi) there was a very decided improvement under treatment with the X-ray.

Acne Vulgaris. These cases make up a large part of dermatological practice, and the results accomplished with them by the aid of the X-ray are extremely gratifying.

It is preferable to puncture and evacuate the pustules and then to apply the X-ray. The average duration of treatment necessary is from four to six weeks. The number of exposures required is about a dozen, and they might be given at the rate of about two or three a week at first, and later one a week. Treatment might be continued until there is a very slight dermatitis, when it must be promptly discontinued—but it is only rarely that we continue the treatment to the development of even a mild dermatitis. As a rule, the improvement begins after a few treatments.

We have treated about 120 of these cases with generally good results.

Acne Rosacea. The results accomplished in this form of disease are not very satisfactory. Other methods of treatment are preferable. In 15 cases treated there was very little accomplished.

Psoriasis. The value of the X-ray in psoriasis is well established.

The length of treatment necessary to cure it depends very much upon the nature of the lesions. Acute and subacute lesions—that is, those that do not have much induration and are covered with small flake-like scales—yield much quicker to treatment than the old chronic indurated spots covered with thick scales. Those situated on the face and scalp generally yield quicker than those on the trunk and extremities. As a rule, we do not treat psoriasis situated on the trunk with X-ray, on account of the possible injury to the underlying viscera. The treatment does not seem to have had much influence upon the recurrence of the lesion, although it seems to me as if those cases where the X-ray has been used until a dermatitis and peeling off of the skin has been produced remain free for a longer period than those cured by other methods.

The number of patients treated was 48.

Eczema. The results accomplished in this class of cases is very encouraging. Eczemas of all varieties yield more or less readily to the X-ray.

The moist, weeping kind generally requires less treatment than the dry, scaly patches. I have repeatedly seen cases of years' standing, that have resisted every other form of treatment, cured with the X-ray. We have treated 125 cases with generally good results in all those who have sufficiently persisted with the treatment.

In *lichen chronicus*, *lichen planus*, and *lichenoid eczema* conditions, while the subjective symptoms yield readily to treatment, as a rule they are more stubborn as to final results than the cases of eczema.

Out of 45 cases treated, the large majority were cured.

Lupus Erythematosus. At one time it looked very much as if the high-frequency spark was the ideal treatment for lupus erythematosus, especially if the lesion was not an extensive one. As a rule, the results were very prompt; we could destroy a small area at each treatment, with a remaining smooth, flat scar.

The method used is that of holding the pencil electrode within a very short distance (about 2mm.) of the lesion, with a current of sufficient intensity to destroy the tissue to the depth desired. In using the high-frequency spark as a destructive agent, the most important thing is the regulation of the spark-gap. It is advisable to have an indicator on the rod, with which the spark-gap is regulated, which shows at a glance the length of spark with which we are working. As a rule a short spark is sufficient.

For superficial destruction, a pointed glass vacuum electrode will suffice, but where deeper destruction is required we must use carbon or metallic electrodes. The determination as to the proper amount of destruction required can only be gained by personal experience. Unfortunately, in lupus erythematosus the treatment does not guard against recurrence, and I regret to state that while the immediate result is good, the ultimate result is not quite so favorable.

We have treated 40 cases with good immediate result, but with recurrence in a large number of them.

Lupus Vulgaris. We do not see very many of these cases in our clinics in this country.

Lupus of the mucous membranes is best treated with the X-ray, while lupus of the other parts of the skin seems to yield quicker to the sparking, as above mentioned.

In six cases treated, there were cures in three, and improvement in the others.

Five cases of *tuberculosis verrucosa cutis* did very well with the high-frequency spark treatment.

In common *alopecia*, if it has not progressed too far, and if it is the result of a insufficiency of blood supply to the scalp, a great deal can be accomplished with the high-frequency flat vacuum electrode-labile applications, using the current strong enough to produce a fair degree of hyperemia of the scalp.

In *alopecia arcata*, the result is about the same as that accomplished by other methods.

We have treated 35 cases of alopecia.

The high-frequency spark is of very great value in the destruction of *verrucae* of different types; also in the destruction of

different forms of *navi*, and in *molluscum contagiosum*. In small, superficial lesions, the pointed glass electrode is to be preferred, on account of its being less painful and producing practically no scarring whatever; but in larger lesions, where deeper destruction is required, we must use the carbon electrodes. In a bad case of *navus pigmentosus pilosus*, situated on the face of a young girl, I applied the X-ray until it produced a second degree dermatitis, which healed rapidly, leaving a very good scar. I think this is a very good way of treating these cases, but we must be careful not to produce too serious a dermatitis.

In all, we treated 75 of these cases.

Keloid. The X-ray has a very decided action on scar tissue. It does not require many treatments to produce a more or less flattening of keloidal growths, but to expect a permanent cure it appears to be necessary to continue the treatment until we have produced a fair degree of dermatitis.

There were 15 of these cases treated.

In four cases of *folliculitis decalvans* treated with the X-ray, the result was very satisfactory.

In *pruritus*, due to various causes, the X-ray and high-frequency currents both seem to have the property of allaying itching. In treating young persons, especially if the pruritus is in the genital region, we must keep in mind the property of the X-ray to produce sterility, and depend upon the high-frequency effluva, which is harmless.

We treated 28 of these cases.

In a case of *kraurosis vulvæ*, in an old lady of 76, after a half dozen X-ray exposures up to date, there is very little improvement.

Mycosis Fungoides. This is one of the conditions in which we were absolutely helpless until the X-ray era began. At present we can do a great deal for it with the X-ray, but I am sorry to say the lesions are only controlled, not permanently cured. We treated five of these cases, and all have been repeatedly clinically cured, only to relapse shortly after treatment was discontinued. One case has been under treatment for the past three years, and is apparently well as long as he gets his weekly exposures, but returns with new patches if treatment is discontinued for a while. The subjective symptoms, the very bad itching, are generally improved in a short time, and the patients continue in their regular occupations with a feeling of general well-being. This in itself is a great triumph for the X-ray.

Rhinoscleroma.—Probably the most gratifying results in the

field of radiotherapy are accomplished in this—up to a short time ago regarded as incurable—ailment. One of the most interesting cases was that of a female, Russian by birth, 53 years old, who was referred to the clinic for treatment by Dr. Milton J. Ballin, on June 1, 1906. The history dates back sixteen years when the nose first began to enlarge and the pharynx and naso-pharynx became involved. In these latter organs, the condition, which began in a catarrhal form, proceeded to a process of ulceration which gradually healed, leaving a firm cicatricial band. The nose continued to enlarge, despite all treatment; several operations performed had no effect whatever. When she presented herself for treatment the nose was probably double its natural size, with a large ulcerating growth spreading from both nostrils over the upper lip. The nasal passages were entirely occluded, the whole organ having a hard, ivory consistency.

The treatment was at first given three times a week with a medium vacuum tube, at a distance of about four inches, for a period of five minutes. As the extra-nasal part of the growth disappeared, a tube of a higher degree of vacuum was used, and the exposures reduced to twice a week. She developed a mild degree of dermatitis several times, which promptly disappeared on discontinuing treatment for a week or two. The improvement was very rapid. It began after the first few treatments, and at the end of five months the nose looked practically normal. In another case of rhinoscleroma which has only been under treatment for a short time there is also a decided improvement.

We also treated at the hospital a most interesting case of primary *scleroma of the larynx*, due to the bacillus of rhinoscleroma. This was in a young woman of 21, born in Russia, who came to the clinic of Dr. Emil Mayer with symptoms of hoarseness and dyspnoea. On examination a large growth was seen under the vocal cords on a level with the cricoid cartilage, almost entirely occluding the caliber of the larynx. A small section was removed and the pathological examination proved it to be rhinoscleroma. She was referred for X-ray treatment, but after only one or two exposures the dyspnoea became so marked that it was decided to open up the larynx. This was done by Dr. Gerster on March 30, 1907, who made a longitudinal incision three and one-half inches long reaching to within one-quarter of an inch of the sternum. A tracheotomy tube was inserted, and the rest of the incision was kept open to allow more direct application of the X-ray. The first application was given on April 9, under an anæsthetic, with the walls of the larynx held

open by retractors. The subsequent applications were given without an anæsthetic, at the rate of three times a week, each of five minutes' duration, and applied through a Friedlander shield, with the opening of the hard rubber attachments in direct contact with the incision. The tumor yielded rapidly to this treatment. On May 15, five weeks after treatment was begun, the tracheotomy tube was removed and the incision permitted to heal by granulation. An examination of the larynx at this time showed it to be perfectly clear, and no signs of any remains of the tumor could be seen. The dyspnœa had entirely disappeared, and the patient's condition was very good. A laryngological examination made five months later shows the larynx to be entirely clear and no signs of any recurrence whatever.

Sycosis. This is one of the conditions in which the opinion of all dermatologists as to the value of the X-ray is practically unanimous.

The results accomplished, in comparison with other methods of treatment, are simply marvellous. I have repeatedly seen cases of five years' standing, involving almost all the hair follicles of the face, cured in six weeks' treatment. The method of treatment is to continue with the X-ray until all the affected hairs are epilated.

We have treated 105 of these cases, with almost 100 per cent. cures.

The action of the X-ray upon the hair follicles in producing epilation can be well utilized in other diseases affecting the hairy portions of the body—such as *trychophytosis capitis*, of which we have treated 30 cases with fairly good results.

Also in *favus*, of which there were five cases treated with good results.

In these latter two conditions it is advisable to apply various germicidal ointments in addition to the X-ray.

Another condition in which the epilating power of the X-ray can be made of great value is in *hypertrichosis*. Hair epilated with the X-ray, if left alone, generally returns in about two or three months, but if an occasional exposure is given for a long time, probably a year after epilation, the hair follicles become permanently destroyed.

This condition requires the most careful technique, for we must keep in mind that the treatment is for cosmetic reasons, and to replace superfluous hairs with a bad X-ray burn which will probably leave behind a permanent network of telangiectic blood vessels may lead to serious inconvenience. We do not treat these patients in the

clinic, but in private practice. I have treated 15 cases with good results in those who had sufficient perseverance.

I might also mention several cases of *hyperidrosis*, affecting the palms of the hands, who improved under X-ray treatment, but only after a long series of treatments. In a patient with *xanthoma diabeticorum*, who had cord-like ridges over both palms, arms, and legs, there was a decided flattening, and even complete disappearance of the ridges on the parts treated.

CLINICAL REPORTS—(a) A CASE OF SYPHILITIC REINFECTION—(b) CASES OF SYPHILIS INSONTIUM.

By G. K. SWINBURNE, M. D.

Read before the Sixth International Dermatological Congress, New York, September 9 to 14, 1907.

(a)—*A Case of Syphilitic Reinfection.*

I FEEL impelled to report this case because of the comparative rarity of cases of this kind and because we are rather skeptical of these cases when reported.

A. M., about 28, was sent to me by Dr. W. L. Culbert in July, 1906, with an ulcer on the dorsum of the penis. Small circular ulcer with a ragged base, and there was nothing especially characteristic about it, but such uncharacteristic ulcers are frequently followed by syphilis. In common with many physicians, no matter how characteristic a lesion may be, I wait for other symptoms and always treat any kind of a lesion of the penis with suspicion, until it is proven *whether it is specific or not by its subsequent history*.

In the present case which I am reporting, the patient had had syphilis seven years before, and had all the characteristic symptoms, chancre, general adenopathy, eruption, mucous patches; he was under treatment off and on for four years under the care of Dr. Culbert. There can be no reason for imagining error here.

The ulcer I pronounced "an infected ulcer." There were reasons why the patient desired to be relieved of anxiety, not because he had a special fear about going through the disease again, but because at the time the lesion was a small pimply-like affair he had endangered a friend, a married woman, exposing her at a moment when the idea of syphilitic reinfection was unsuspected by him, so that, as it steadily increased in size, his fears were aroused. I told him I was not much of a believer in the possibility of syphilitic reinfection, that there was nothing especially characteristic at present, though a sore on the penis was always an object of suspicion. The

period of incubation of this lesion could not be accurately determined, as it had none of the characteristics of a gumma. The lesion was then ten days to two weeks old.

I saw him again three or four weeks later when he had heard from his friend that she had a soreness of the vulva. She would not come to me, but was reassured by another physician whom she consulted that there was nothing the matter with her.

A short time after this, one or two weeks, the patient appeared again, showing a general glandular enlargement, especially marked in both groins. He said it had come on suddenly and that when he had his syphilis seven years before, the enlargement had come on suddenly in the same way. I told him that I did not believe there was any reason to suppose he had syphilis; he might expect such enlargement of the glands of the groin even after healing of such an ulcer as he had had. These glands in the groin, however, did have the characteristic enlargement and painlessness which we see in connection with syphilis. The epitrochlear glands could be felt at the time of his first visit and the gland in front of the inferior maxillary articulation could also be distinctly felt on one side. He said that that had always been there since his first attack of syphilis, that he had noticed it at that time and had often noted its presence since, and that it was unchanged.

A short time after this, seven weeks from the time he first noticed his lesion, he came again with a macular eruption on the chest, loins and front of arms. The situation was characteristic, but I did not think it had the look of a syphilitic macular, and pronounced it a pityriasis rosea. Dr. J. C. Johnston, whom I asked to look at the eruption, at once pronounced it pityriasis rosea. Nevertheless, as the eruption did not disappear, Dr. Culbert asked Dr. Elliot to see the case, and on his saying it resembled a syphilitic macular eruption, Dr. Culbert placed the patient on 1-60 gr. bi-chloride tablets and there was complete disappearance of the eruption in a few days. The mercury was not, I believe, continued for any length of time, and Dr. Culbert in November sent the patient to me again with characteristic mucous patches on the side of the tongue and on the fauces. In view of this I receded from my diagnosis of pityriasis rosea and accepted the diagnosis of syphilis, pronouncing it a case of syphilitic reinfection. The patient since that time has been under constant treatment, and during that time no other manifestations have appeared.

(b)—*Cases of Syphilis Incontium.*

R. A. J., son of a physician, about twenty years old, a college

student, a large, athletic, manly fellow, consulted me in the latter part of October, 1905. He had had a supposed attack of quinsy the previous August. All his life he had been subject to attacks of tonsilitis and had enlarged tonsils. The tonsil was removed early in September, but was not at the time subjected to pathological examination. Before the throat had entirely healed, he was training for the football team and noticed that he was receiving no benefit from it, but was affected with malaise, disinclination to work, and was obliged to give it up. He saw a throat man in the college town, who told him he had syphilis. He asked how that was possible, as there had been no exposure for two years. (I had treated him for a gonorrhœa acquired two years before in his freshman year, and he had since that time avoided the risk of contagion.) He was sent to a prominent dermatologist who gave the opinion that there were not enough data to make a positive diagnosis. He came home and was then sent to me.

When he presented himself, he was distinctly anæmic, the sub-maxillary and cervical glands were markedly enlarged, so much so as to be very noticeable, but were painless. There was no other glandular enlargement. The left tonsil, which had been removed, had healed. The right tonsil was enlarged. There were no lesions of any kind in the throat or mouth. I maintained that a diagnosis of syphilis could not be made and advised him to consult a prominent throat man of great experience, who agreed with me that the other tonsil be removed and that he be placed on tonics, avoiding any specific treatment whatever. This was done and he returned to college, but was kept under competent observation, while there.

He appeared again during his Christmas vacation, and I noted that he had recently had some falling of the hair. He had some seborrhœa of the scalp, and the falling of the hair was so slight that I thought it might be due to this. He had a very thick head of hair. The glands of the neck in the meantime had subsided somewhat. He was not nearly so anæmic. In February he had typical mucous patches in the throat and was then placed on inunctions. The glandular enlargement, then slight, subsided entirely, his ruddy color returned and he regained his strength completely and felt like a new man. The inunctions have been kept up until a month or so ago. No other manifestations have appeared since treatment was begun.

In looking for a possible source of infection, we made up our minds that the most likely source of infection came about in this way. Early in his summer vacation he made frequent trips to Coney

Island. There he amused himself blowing up the lung testers which they have there. In this way he might readily have gotten the virus on his lips which from there was conveyed to his tonsil. The tonsils, always in a state of hypertrophy, might readily have served as a port of entry and the attack of tonsilitis in August was really the initial lesion which had become infected and was removed by tonsilotomy. The syphilitic infection must have occurred prior to the tonsilotomy, as the typical glandular enlargement was noted at the time of the supposed tonsilitis.

I had had previous to this time two cases of syphilis insontium where the initial lesion was the tonsil.

The first case, P. R., about twenty-five, consulted me in August, 1903, having a very peculiar looking ulceration covering the fauces, which proved to be due to an underlying syphilis. He denied chancre or any previous venereal disease; was married. He had chronically enlarged tonsils, was subject to tonsilitis and had had many attacks. The preceding February, while in Denver, Colorado, he had what was diagnosed as a quinsy, a painful and swollen tonsil, the glands of the neck became enormously swollen, but afterwards subsided. Early in April he had noted an eruption over his body which had passed away and he did not think much about it. In May began the peculiar ulceration in the throat which lasted up to the time he came to consult me. He had also at that time noticed some falling of the hair. The source of infection could not be made out and he absolutely denied unnatural practices. I had no doubt at the time that the supposed quinsy was really a chancre of the tonsil, and the source of infection was never known.

During the summer of 1902 I had under my care a young man with a chancroidal ulcer of the penis: the sore had healed and one day he appeared with a severe stomatitis which had come on suddenly and was the first manifestation of constitutional syphilis. I then learned for the first time that he was married but that he had had no relations with his wife since the appearance of his initial lesion. For the first time I warned him of the danger of kissing his wife. It was about a month later that he brought his wife to me complaining of a painful tonsilitis, which proved to be a chancre of one tonsil and was followed in due course by a syphilitic rash. At that time she was eight months pregnant, but was delivered at term of a healthy child, which remained healthy for three years, during which time I had followed all these cases. The child was brought up on artificial feeding.

The wife had always been subject to tonsilitis, had had many

attacks. The husband had refrained from kissing her after he knew of the danger, but had kissed her after the syphilitic stomatitis had appeared and before he had consulted me about it. In this way undoubtedly the virus deposited on her lips had in some way reached the tonsil, and can be accounted for in no other way, it seems to me.

I wish to report three more cases, one a case of chancre of the tip of the tongue in a young man twenty-three years old; the source of infection could not be determined.

2. A young actress with a chancre of the lip; the only source of contagion admitted was due to the fact of a kissing scene between herself and the leading man on the stage, he kissing her on the lips nightly. He had told her that he had had syphilis one and one-half years, was under constant treatment and had no lesions of any kind; in spite of this knowledge the scene was made realistic. When the chancre of the lip appeared, the young woman left the company and came to New York, and came under my care.

3. A young man this last year had graduated from college. He was a personal friend of the first case reported of tonsillar chancre. After leaving college, went to work in a machine shop, for his own amusement. One day he noticed simultaneously that he had a painfully swollen gland under the jaw and a sore in the middle of the lower lip. Later he noted another similar sore on lower lip to one side of this. This was followed in due course by a very general macular eruption over the entire body, forehead and face as well. In this condition he consulted Dr. G. E. Brewer, who referred him to me for treatment. It was evident to me that he had a double chancre of the lower lip. The probable source of contagion was a ragged-edged tin can used by the working men as a drinking vessel at the machine shop, certainly a most favorable article to hold and convey syphilitic virus.

XERODERMA PIGMENTOSUM

By WALTER BOOTH ADAMS, M. A., M. D.

Professor of Dermatology in the American School of Medicine of the Syrian Protestant College, Beirut, Syria.

LENTIGO maligna progressiva seems the most appropriate name for Kaposi's disease. The case here reported, presented herself at my clinic in March, and gave the following history: Rauan (Arabic for rhubarb), was nineteen years of age, unmarried, and has always lived in a small hamlet near Zahleh, Mt. Lebanon. Family history excellent, and careful questioning failed to reveal any similar disease in collateral lines of the family. She was quite well till she was seven years old, when her parents noted abundant and very

PLATE XXX.—To illustrate Dr. Walter Booth Adams' Paper.



deeply pigmented freckles, that did not go away in winter, but that underwent a change and became warts and finally ulcers, that were very slow in healing. The lentigines were first noticed on the face and then on the hands and then on the chest, where it was exposed by a "V" shaped opening of the dress.

The face presented the various forms of lesions seen in this disease. There were small telangiectic spots, though not numerous. Most of the skin of the face was covered by dark brown, blackish or bluish-black freckles. These were in various degrees of evolution into papules, which were darker than the freckles. The large warts were somewhat painful to the touch, and removal showed an ulcerated surface beneath. These wartlike growths would of themselves come off leaving the shallow ulcer, which would be a long time in healing, and when healed left a pock mark quite like a smallpox cicatrix. All these various forms were exhibited on the face.

On the chest were the same lentigines, with some of them changed to papules, but none became warty nor did they ulcerate, but they underwent a retrograde change and became small, white cicatrices on a level with the surrounding skin.

The hands presented a still different condition. On them there was a true condition of xeroderma, with a considerable thickening, and a feeling of hardness and inelasticity. There was deep pigmentation in general without so many separate lentigines. Also there was some exfoliation.

The saddest feature of the case was the attack on the eyes. The sight of the right eye had been entirely destroyed by one of the papules appearing on it and developing into an ulcerative keratitis, which gave much pain and distress, and she gladly consented to an enucleation at the hands of my colleague, Professor Webster. On the left eye the photograph shows clearly two papules, one on either side of the cornea, and a bad prognosis was given for that eye also. The semi-darkness of the eye-ward and hospital regime seemed to improve her general condition and to hold the processes in check. Arsenic in full doses was given, and she had about a dozen sittings before the X-rays, when she was summoned home by her parents.

Blood examination was negative, as were tests for other abnormalities other than the skin lesions. There was, however, the apathetic and dull habit of mind, a seeming brooding over trouble, without there being any real melancholy, as Hyde notes in his cases, also.

On leaving for her home she was advised to veil as a moslem woman whenever she should go out, and at all times to avoid as far as possible, the rays of the powerful Syrian sun.

BOOK REVIEWS.

Paraffin in Surgery. A critical and clinical study by WM. H. LUCKETT, M. D., Attending Surgeon, Harlem Hospital, Surgeon to the Mt. Sinai Hospital Dispensary of New York, and FRANK I. HORNE, M. D., formerly Assistant Surgeon, Mt. Sinai Hospital Dispensary; 12mo; 38 illustrations; 118 pages. Surgery Publishing Co., 92 William Street, N. Y. City, 1906.

The principal purpose of this book is to clear up the great difference in the opinions in regard to the final disposition of the paraffin after it has become embedded in the tissue. A review of the literature leaves the question undecided. A study of the chemistry of paraffin, of the early, that is, of the immediate disposition of the paraffin in the tissues and the physical state of the paraffin at the time of the injection, justify the authors in giving preference to the harder paraffin, which is injected in a melted state, will cool more rapidly and solidify in the tissues, thus helping to anchor itself firmly. It will be more uniformly subdivided in small particles, each of which is encapsulated as well as the whole mass itself. The anchorage will be the more firm the richer the injected site is in connective tissue. The technic and the instrumentarium, especially the selection and the preparation of the paraffin mixture are minutely described in Chapter VI, unsatisfactory results and accidents are explained; experience shows that dangerous mishaps can be avoided by the use of hard paraffin with a melting point above 110° F.

The second part of the book contains the Casuistic and Reports on Functional Improvements (incontinence of urine in the female, 2 cases, umbilical hernia, 17 cases, and other hernias, 3 cases) and Cosmetic Improvements (depressed scars, 6 cases, hemiatrophia faciei, 1 case, saddle noses, 35 cases). The latter give uniformly good results. The numerous full page illustrations, clear print and strong paper have enabled the authors to issue in the form of a handsome volume what could have easily been condensed in a journal article of moderate size.

H. G. K.

Rhythmotherapy. A Discussion of the physiological Basis and therapeutic Potency of Mechanico-Vital Vibration, to which is added A Dictionary of Diseases with Suggestions as to the Technic of Vibratory Therapeutics. With Illustrations. By SAMUEL S. WALLIAN, A. M., M. D., Chicago. The Ouellette Press. 1907.

The author has endeavored to place the modern Vibro- or Rhythmotherapy, the application of rhythmically reiterated mechanical energy, on a scientific basis. This might have been better accomplished without the frequent and lengthy excursions into philosophy, dietetics and other fields which rather detract the attention from the subject itself. The physiological basis of vibratory treatment, the technic, the different apparatus are described, but not in a very clear, methodical or logical manner. The numerous apparatus are illustrated, two colored plates show the principal areas of the body in their relations to the spinal ganglia.

The Dictionary of Diseases is preceded by general remarks on anæmia, indigestion, constipation, gout, rheumatism, etc. Among the diseases proper we find alopecia and atrichiasis, comedoes, eczema, zoster, Raynaud's disease,

ulcers and warts; only in alopecia and warts is a direct influence claimed for vibration, and in most instances beneficial influence is claimed only for the locally stimulating and generally tonic effects of vibration as an auxiliary to other treatment, also in venereal diseases, impotence and similar conditions. H. G. K.

Die Legende von der Alterthums-Syphilis. Medicinische und Textkritische Untersuchungen von Dr. ALBRECHT FRHR. VON NOTTHAFFT, Privatdocent an der Universität Muenchen. Leipzig, Verlag von Wilhelm Engelmann, 1907.

The question of the origin of syphilis, *i.e.*, whether it was introduced from America, especially from the West Indies, by the followers of Columbus, or whether it had existed in some form previously to the epidemic towards the end of the 15th century from medieval or the most ancient times, has been an open one for the last centuries. It has been ventilated over and over again, now the one and now the other opinion prevailing over the opposite one in the public mind. Within the last years several authors, among them SCHEUBE and particularly BLOCH have again tried to establish beyond doubt the American origin of syphilis. To the author of this book the question which for 400 years has engaged the physicians, the historians, and the philologists, has now been definitely decided by the book of BLOCH. Hence, as PROKSCH has spoken of the "Myth of the American origin of syphilis," N. has selected as the title of his book, "The Legend of Syphilis of Antiquity."

N. explains the introduction of syphilis by the crews of the ships of Columbus and its immediate and rapid distribution throughout the then civilized world, and criticizes what objections have been made against the "American" view. He then considers the various arguments in favor of the introduction from Asia, the alleged prevalence of the disease among the Scythes, among the Egyptians, the Jews, the Greeks and the Romans. He then carefully sifts all quotations from ancient and medieval literature which have been used to demonstrate the description of primary and secondary symptoms, of manifestations of constitutional syphilis without the presence of affections of the genitals, of tertiary and hereditary syphilis and of syphilitic scars. The arguments which have been advanced by the adherents of the antiquity theory are analyzed, and of course contradicted, and quotations from all kinds of authors, medical and profane, are criticized from the standpoint of the physician, the historian, and the philologist. Of course, mostly, the interpretation of the author is directly opposite to that of his adversaries, both sides undoubtedly perfectly honest in the belief of the correctness of their own views. But until a non-partisan judge could be found who would be able to decide between the two contending opinions, or unless some new and indisputable evidence be discovered, the question will hardly ever be definitely settled, and it is doubtful indeed, whether the subject is really worth the great amount of work which the author has devoted to it: the opposition will scarcely admit defeat.

H. G. K.

The Diseases of Women. A Handbook for Students and Practitioners by J. BLAND-SUTTON, F. R. C. S. Engl., and ARTHUR E. GILES, M. D., B. Sc. Lond. F. R. C. S. Edin. Fifth Edition. London and New York, Reiman Co. 1906. 536 pp., with 129 illustrations.

In the preface the authors state that they still believe that when surgical authors are able to restrain their vanity, and refrain from publishing notes of their successful cases in text-books, the established facts of the Art can be presented in a very convenient compass. Indeed, this little book covers the entire field of gynecology in a clear and conspicuous manner. Here only a few chapters of special interest to our readers shall be considered, namely, that on cutaneous

diseases of the vulva (IX, p. 85), and that on vaginal infections and vaginal secretions (XIII, p. 117).

In the former erythema, eczema, herpes, lichen ruber, tuberculosis, syphilis, condylomata, elephantiasis, vulvitis pruriginosa, kraurosis vulvæ and pruritus vulvæ are mentioned. In moist eczema it is recommended to remove the crusts with a strong potash soap and to apply a dusting powder composed of glutol 1 part, 7 parts of talcum; this seems to be a rather too energetic application and likely to be followed by the immediate formation of worse crusts than before. It does not seem clear why the application of ichthyol should be useful only in gouty cases. Under tuberculosis it is correctly mentioned that lupus of the vulva is really a very rare disease, and that many other different conditions have been described under that name (*esthiomène*). Condylomata are promiscuously attributed to syphilis and to gonorrhœa and the same treatment, including mercury and iodine, applied to all; the distinct character of the acuminate condylomata has not been emphasized. Kraurosis and pruritus are well considered. Pediculi pubis can easily be removed without shaving the pubes as here proposed.

In the chapter on vaginal infections and vaginal discharges the various microbes which characterize normal and pathological secretions, as well as the conditions caused by the same or accompanying their presence are described in a clear and lucid manner.

H. G. K.

NOTICE.

By the initiative of Professor Gaucher, the pupils and friends of Dr. Hallopeau have opened a subscription with the object of offering a medal commemorating Dr. Hallopeau's twenty-five years' service at L'Hôpital Saint Louis, of his promotion to the grade of officer of the Legion of Honor and of his numerous scientific publications. The medal is to be designed by Chaplin, with allegorical reverse and will be presented before the end of the year. The amount of each subscription is not limited. Each subscriber of five dollars (25 francs) becomes entitled to a copy of the medal. Subscription open until November 15, 1907. Send postal orders to J. B. Balliere, 19 Rue Hautefeuille, Paris.

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GANGRÆNA CUTIS HYSTERICA.

By HARVEY P. TOWLE, M.D., Boston.

Read before the Sixth International Dermatological Congress, New York, Sept. 9-11, 1907.

THAT affection, variously named Hysterical Gangrene of the Skin, Spontaneous Gangrene, Multiple Neurotic Gangrene, etc., offers many difficulties in its diagnosis. After excluding the cases due to bacterial infection, arterio-sclerosis and organic disease of the nervous system, there remains a number of cases some of which are known to have been self-inflicted. Whether those cases *not* demonstrated to be self-inflicted should receive a separate classification has given rise to much discussion. The following conspicuously illustrate the difficulty of the diagnosis of an artificial eruption when no positive proof can be found.

CASE 1. Female—16.

F. H. Mother died of "lung trouble." Father died of heart disease.

P. H. Negative.

Present Illness: In February, 1904, the patient cut her right forefinger with a piece of glass. Four or five days later she suddenly began to have pain which radiated from the wound up the arm to the shoulder. Within fifteen minutes a small black spot appeared on the end of the right forefinger which spread until the whole skin over the terminal phalanx was black. The pain, intense at first, after the color change had reached its height, grew less intense but did not disappear entirely. The next day she went to the Surgical Out-Patient Department of the Boston City Hospital for treatment. "They scraped it [the spot] and sent her home." The spot was treated with various applications and later, "because the bone had no flesh on it and was of a brownish color," was scraped a second time. After two months' treatment at the Boston City Hospital the patient went to the Homeopathic Hospital when, she said, "the finger had grown black to the second joint and hurt terribly." May 16, 1904, she came to the Surgical Out-Patient

Department of the Massachusetts General Hospital. There was at this time on the palmar surface of the end of the right index finger an ulcer with round contour and concave surface whose base was formed by the exposed phalangeal bone. There was no apparent attempt at healing and no induration or inflammatory thickening of the edges of the ulcer or of the joint. On the next day the terminal phalanx was removed under ether and the stump covered in by a flap taken from the back of the finger. Three days later the wound showed slight signs of infection which subsided quickly. The wound was sluggish and was not completely healed until June 13, about four weeks after the operation. Meanwhile the stump had become painful, apparently from the tight flap. June 21, 1904, the patient was discharged well.

June 23, 1904, she returned with the wound broken down a second time. June 25, the second phalanx was removed. After the operation the finger became swollen, but not red or painful. The pain became so intense that on July 12, 1904, she was referred to the Nerve Department for treatment. Their notes say that "there was present on the side of the finger end a small, necrotic, dark colored area the size of a pea, with a moist center. This area was not especially associated with the flap. Diagnosis neuritis." This lesion persisted until the last of September, 1904. When the patient returned October 3, 1904, the amputation wound was found to be healed, but the stump was still painful and tender. The circulation of the hand was poor.

Her next visit was made to the Nerve Department November 3, 1904, when she had a third lesion higher up than the two preceding. (See photograph.) According to her story, at about one p. m. of the preceding day, a small black spot had suddenly appeared which continued to increase until it was double its original size. "There was over the metacarpophalangeal joint a dry, gangrenous area slightly smaller than a ten cent piece. This area was surrounded by two narrow zones, the inner of a whitish color and the outer pale red. The whole hand was cold and damp and "the girl shrinks from any attempt to touch it." An X-ray photograph showed a marked atrophy of the phalanx. The gangrenous area continued to spread accompanied by severe pains shooting up the arm and across the shoulder.

November 8, 1904, the patient was transferred to the Skin Department, and November 10, 1904, was admitted to the ward for diseases of the skin. The record states that at the time of admission

“there was present on the back of the right hand at the base of the index finger and extending over on the inner surface an irregular ulcerated lesion one-half inch by one inch in diameter. Its shape was roughly quadrilateral. Its edges were of a wavy outline, not elevated above the surrounding skin and sloped slightly toward the center. The base of the ulcer was slightly depressed below the surrounding surface and was covered with a homogeneous, brownish, almost blackish, crust. The inner half of the right hand from the knuckle to the wrist was swollen and slightly erythematous. There was marked tenderness on pressure along a line drawn from the forefinger up the arm.”

The patient was an anæmic, rather dull appearing girl, indifferent to her skin affection except that the general bewilderment as to its nature appeared to afford her much satisfaction. No disease of any of the internal organs could be discovered. Nothing abnormal was found in the blood vessels, and there was no evidence of any organic disease of the nervous system.

The later records state that the ulcer had increased slightly in size when, November 12, a stiff, starched dressing, which could not be easily removed by the patient, was put over the lesion. Two days later the sealed dressing showed evident signs of manipulation. From November 12, to December 1, the ulcer remained in the stiff dressing continuously except that it was exposed now and then for observation and then immediately redressed. Without other treatment the ulcer cleaned up promptly and by December 1 had healed except for one small superficial area. The sealed bandage was then replaced by a simple protective dressing under which the ulcer continued to heal rapidly. December 8, it was practically well, and the patient was told that she would be discharged on the next day.

When the dressing was removed the next morning there was exposed a round superficial ulcer about one-third of an inch in diameter. That same night the patient, who had been left alone a few minutes with the thermometer, developed an apparent temperature of 101 degrees. As there were no other symptoms accompanying, the nurse immediately replaced the thermometer, remaining beside the bed meanwhile. The temperature was now 98.4 degrees. The patient denied tampering with the thermometer. In searching for an explanation of the unaccountable rise it was discovered that if a thermometer was inserted into the hot air register it would rise to 101 degrees in a very few seconds. Although the patient had had the time and the opportunity it cannot, of course, be proved

that she had done this. The newly developed ulcer was enclosed in a sealed dressing and was healed in nine days. The patient was again told that she would be discharged the next day.

For the second time the announcement of her coming discharge from the hospital was followed by the appearance of new lesions during the night. The next morning there was found on the site of the old lesion an elongated superficial excoriation with red, smooth base, secreting much serum, and with jagged, torn edges which suggested mechanical trauma. According to the patient, the lesion had appeared suddenly during the night, without subjective symptoms and, so far as she knew, without cause. Under a sealed dressing the wound had about healed when the patient contracted diphtheria, and was transferred to the contagious hospital, December 25, 1904.

She was not seen again until March 4, 1905, when she returned to the Surgical Out-Patient Department with an irregular ulcer on the inner side of the right index finger, one-half inch in diameter and covered with a blackish crust. This, she said, had developed the day before within five or ten minutes. March 18, 1905, the remaining phalanx was amputated. March 24, the stitches were removed and she was discharged from the hospital with the wound clean and solid. One week later a black, dry, gangrenous area about one-half inch in diameter developed on the inner side of the amputation scar. (See photograph No. 2.) April 13, the gangrenous area was curetted and two inches of the radial nerve was excised. A recurrence was not prevented, however, and on April 22, she was again admitted to the surgical ward where the ulcer gradually healed under hot and cold douches and massage. During her stay in the hospital she complained greatly of sleeplessness and loss of appetite. May 9 she was discharged, but returned on May 25, 1905, to the Surgical Out-Patient Department, saying that since her discharge from the ward the black spot had continued to spread. She was re-admitted to the hospital and the median nerve was stretched. For two or three days after the operation catheterization was necessary. The operation wound healed readily and on May 31 she was again discharged to the Surgical Out-Patient Department. She continued to complain of the pain in her shoulder. The ulcer also continued to spread until by June 24, 1905, it had exposed the dorsel tendon. After curetting it began to close in slowly until, July 29, 1905, it was finally healed.

During her various stays in the hospital the patient had always complained greatly of the tenderness of the ulcers. It was very noticeable, however, that when not under observation the patient was

able to use the hand in a manner which did not bear out her assertion of their great tenderness. Further, if her attention could be diverted while under examination the ulcer could be handled freely without causing any expression of pain.

The patient continued to return from time to time because of pain in the hand and arm. No more ulcers developed on the hand, but, March 27, 1907, she came with a shallow ulcer over the right tendon achilles, which healed promptly and never recurred.

She was seen for the last time April 29, 1907, when she reported that there had been no more outbreaks. "She complained of pain for the last six months in the lower left side at the time of the menstrual periods and also of occasional diarrhœa and vomiting. Nothing was found on physical examination except a slight leucorrhœa."

CASE 1. *Summary—Trauma.*—First manifestation after four or five days at site of wound. Eruption preceded and accompanied by pain radiating from the part. Abrupt appearance of black spot quickly forming slough. Ulcer refused to heal. Spread downwards to bone. No inflammatory thickening or induration. Recurrences higher up at varying intervals pursuing same course as first. Successive amputations of first and second phalanges failed to cure. First lesion round, later ones irregular; once accompanied by swelling and hyperæmia. Healing under closed dressing. Feigned temperature. Twice lesions recurred during the night coincidently with the announcement of her approaching discharge. Amputation of third phalanx and later excision of piece of radial nerve failed to check the recurrences. Was also new lesion after stretching of median nerve. Spontaneous cessation of process after duration of one and one-half years. Eruption limited to hand and forefinger. Slight signs of hysteria. No syringomyelia or arterio-sclerosis. Internal organs normal. Patient not detected. Later, vomiting and diarrhœa with the menses.

CASE 2. Female—18. The patient was admitted to the Skin Ward of the Massachusetts General Hospital, September 13, 1904.

It was difficult to obtain a good history from the patient, as apparently she alternately resented the questioning and amused herself by making indefinite and contradictory replies. The family history and the previous history were negative. Two years ago the patient was vaccinated on the left upper arm. The inoculation went

through the usual cycle and healed. A few weeks later a small red spot formed on the site of the inoculation which spread gradually and finally broke down and formed a good-sized ulcer. Under simple treatment this ulcer healed, but has broken down again several times at varying intervals. Two months after vaccination a second ulcer similar to the first appeared in the bend of the elbow. Since then there have been continual recurrences.

The patient was a well-developed and nourished young woman. Nothing abnormal was found in the heart, lungs, kidneys or other organs. No temperature nor pulse. There were signs of hysteria present. Except on the left upper extremity the skin of the body was normal.

On the outer aspect of the left upper arm was an irregularly circumscribed ulceration about two and one-half inches in diameter. Its edges were healthy and raised very slightly. The outermost half inch of the ulcer was superficial and the base clean and granulating. The area within this outer zone was deeper, irregularly quadrilateral in shape, with gently sloping edges and of a bluish-yellow, necrotic hue. On the outer surface of the left elbow was an elongated, superficial ulceration about one-half by two inches in dimension, dark colored and shiny. There was also a bean-sized crusted lesion just below the larger ulcer on the upper arm. (Fig. 3.)

The sites of the former lesions were marked by several small scars and by a macular, rather purpuric looking area on the extensor surface of the upper fourth of the left forearm.

The patient was discharged at her own request October 4, 1904. While in the hospital the ulcer at the bend of the elbow had nearly healed, the large ulcer on the upper arm had closed in somewhat, but the small ulceration on the upper arm, after partially healing had again broken down and at the time of discharge was as large as at entrance.

When she returned to the O. P. D. October 17, 1904, it was found that the ulcer on the upper arm had grown larger and was connected with a smaller lesion just below it by a narrow, superficial abrasion. The surface of the upper lesion was covered by a dark blood crust, while the skin was livid for a considerable distance around. In the bend of the elbow was an elongated, superficial, dark colored ulceration, like the upper lesion, surrounded by livid tissue. The ulceration in the bend of the elbow had healed by October 25, and the others were apparently closing in. On November 1, the patient returned with fresh, irregular, jagged, red patches, ex-

tending from the ulcers on the upper arm around to the inner surface of the arm, over which the patient complained of tenderness. The scar of the old lesion in the elbow had broken down again. The arm was enclosed in a sealed bandage which was continued until November 26. Under this bandage the large upper ulcer healed steadily. The small ulcer at first diminished in size, then grew deeper, but finally began to heal. The ulcer at the bend of the elbow at first grew shallower and longer, then filled in and contracted rapidly. All the ulcers promptly became cleaner and healthier looking. On November 8, while having the dressing removed, the patient suddenly fainted. Her color remained good. The pupils were dilated. The eyelids fluttered rapidly. There was slight tremor of the arms, most marked on the right. Unconsciousness was not complete. Later on the patient stated that she had had similar attacks before which were always preceded by a "peculiar, bad feeling in her stomach."

From November 26, when the sealed dressing was omitted, onward the progress was so unsatisfactory that the patient was readmitted to the skin ward on December 9, 1904. At this time it was noted that "on the left arm at the insertion of the deltoid the epidermis is gone over an area 2x2 inches in its widest diameters with a short peninsula of normal skin on its lower, inner side. For about one-half inch inward the lesion is very superficial, nearly level with the surrounding skin, and grayish pink in color. Within this is a central area of irregular contour which is depressed somewhat below the surface. The lower portion of this central area is of a reddish color while the upper portion is covered with a brownish black deposit. The whole lesion is moist. The surrounding skin for a distance varying from one-quarter of an inch to one inch is of a slightly dusky hue. One inch lower down on the outer aspect of the arm is a lesion one-quarter of an inch in diameter whose periphery is slightly elevated and whose center is covered with a dry, greyish crust. Removal of the crust exposes a smooth surface bathed in a profuse, clear secretion. At the bend of the elbow is a dusky area one and a half inches wide extending across the arm. In its center is an elongated ulceration with a concave base, not especially deep, edges not elevated nor indurated. The base is a healthy red, secretes serum abundantly and bleeds easily."

December 11, the patient had an hysterical attack, during which she attempted to do herself injury. Her pulse was normal throughout. No temperature.

"On the morning of December 14 the back of the left hand and the arm up to within two inches of the elbow was discovered to be swollen and slightly erythematous. Three inches below the elbow on the outer surface of the arm the skin was denuded of its outer layers over an irregularly triangular area, one and one-half inches in its widest part. The surface of the excoriation was smooth and red and its edges jagged and irregular. Just below and adjoining this area was a cluster of vesicles both discrete and confluent. When questioned about this new outbreak the patient at first said that early in the previous evening her left arm began to pain and a black spot the size of the tip of the finger appeared which within an hour and a half had attained the size of a fifty-cent piece. But later she said that the eruption began with vesicles of various sizes. She removed the top from the largest which left the denuded area described." The upper arm, which had been enclosed in a starch bandage, remained unchanged. Under a closed dressing the ulcers healed very rapidly. On December 21, the larger upper ulcer was covered with healthy granulations and had diminished to less than one-half its original size, while the smaller ulcer below it had practically healed. December 21, the patient left the hospital because the starched bandage was replaced.

The girl was not seen again until February 23, 1905, when she returned to the O. P. D. with the ulcer on the upper arm in about the same condition as at the time of her discharge from the hospital, but with the scar of the old ulcer at the bend of the elbow broken down again.

On April 7, the elbow had entirely healed, while the lesion on the upper arm was about one-half smaller. On the forearm was a dusky colored patch of two days' duration in whose center was a pea-sized circular area of reddish brown with a central, pin's head-sized blackish point. April 25 the upper lesion had grown more superficial and was covered with a brownish-black crust from beneath which oozed a dark colored discharge. May 1, 1905, the patient left in anger because asked if she had caused the ulcers. She was not seen again until a few months ago (1907). All the lesions had entirely healed with irregular hypertrophic scars. She reported that there had been no outbreak for over a year.

During the course of her affection the patient was examined several times by the neurologists both in the out-patient department and in the skin ward, but, except for hysteria, nothing abnormal was discovered in the nervous system. At one of these visits

to the out-patient department an unsuccessful attempt was made to hypnotize the patient. As she disappeared immediately after the attempt could not be renewed.

SUMMARY. Hysteria. Trauma followed in a few weeks by first eruption on site of wound. Recurrences on site and below it, but never above. New lesions at varying intervals. Lesions superficial. Erythema becoming gangrenous; excoriations; redness, swelling, vesicles and excoriations: superficial unsymmetrical ulcerations with crusts usually dark; livid patches. Healing under closed dressings. Dressing tampered with. Eruption on exposed arm and hand sparing the part protected by bandage. Onset of eruption sudden, generally without preceding subjective symptoms. Course to gangrene rapid followed by slow healing. Irregularity of form of lesions marked. Duration of process about three and one-half years. Eruption confined to left arm. Spread of eruption very irregular, jumping about from place to place. Patient viewed outbreaks with complacency and pleased with attention attracted.

CASE 3. Female—22. This patient was admitted to the Skin Ward of the Massachusetts General Hospital November 13, 1906. It was impossible to obtain a satisfactory history from the patient, but fortunately I was able to confirm and supplement her story by means of letters received from her attending physician and from the different hospitals in which she had been a patient.

Both parents died when she was a child. At nine years of age she was adopted. The cause of the father's death is unknown. In the case of the mother, although one hospital record says that she died of tuberculosis, the patient's attending physician says that the cause is not known.

The patient says of her previous history that she had always been well up to the time of the present affection. On the other hand, a letter states that she was "well until fifteen years old when she began to have sick spells, apparently of acute indigestion, which sometimes confined her to her bed for two or three weeks." Further, another letter states that in 1904, while in a hospital for the treatment of her skin affection, she had an attack of appendicitis, but was not operated on. Also Dr. Waterman, of the Nerve Department, obtained from the patient evidence of periods of amnesia.

In regard to the present illness all accounts agree that the starting point was a burn by steam on the right wrist in January, 1903. The burn was treated with a strong solution of carbolic and

refused to heal, so that in March she consulted Dr. ——. He writes that at that time "there was an ulcer one inch in diameter covered with a greenish exudate, situated over the base of the ulna on the anterior surface. After four weeks (April) the ulcer healed. In July the scar was re-opened by a pin prick and underwent a course similar to the first, but attended with greater pain which ascended to the shoulder and neck. The wound showed no inclination to heal. After eight weeks' treatment it was excised." (The patient stated that the wound was excised in November and that prompt healing followed the operation.) "About two weeks later another ulcer occurred about half way to the elbow, which was also excised. Healing by first intention." December 24, 1903, the patient entered a hospital, whose record follows: "On admission there was an ulcer over the lower end of the ulna which she says was caused by carbolic acid some months before. Above this in a straight line up the arm were four other ulcers which she said had appeared later and without known cause. These were dressed with various applications for a time without much result. Then she was given X-ray treatment under which they improved rapidly. The patient was discharged at her own request at the end of two weeks and before the ulcers were entirely healed."

The physician already quoted takes up the story again at this point. He says that "in January, 1904, four ulcers appeared simultaneously in the bend of the right elbow similar to the former lesions and healed slowly. At the same time ulcers appeared on each instep and were excised." (According to the patient's story, new areas appeared on the inner surface of the right elbow and left wrist about February 1. The failure to heal them with X-ray was followed by their excision. She does not mention the lesions on the instep.) "Up to this time the lesions had all been characterized by ulceration, greenish exudate and slow healing. Now, a new variety of ulceration followed which was characterized by its band shape, encircling the leg above and below the knee. The skin took on a blanched appearance sloughed with a white exudate which resembled granulated sugar. In April, 1904, ulcers of the first variety with a greenish exudate appeared on the abdomen, some of which were excised. Other lesions appeared at frequent intervals."

June 3, 1904, the patient entered a second hospital at which the diagnosis of hereditary syphilis was made. She was given anti-syphilitic treatment under which the lesions improved very rapidly. June 18, 1904, she was discharged.

After nearly a year of freedom from further outbreaks, her physician's letter continues, "in May, 1905, a blister of the right index finger was followed by the appearance of gangrene which was excised. As there was not tissue enough to cover the wound, it was left to granulate. The granulations appeared healthy, but broke down in a few days. The following necrosis eventually involved the metacarpal bone, which was therefore removed in August, 1905. Skin grafting to close the wound was successful. Since this, ulcers have continued to appear in quick succession in various parts."

Two weeks before entrance to the Massachusetts General Hospital three lesions of one week duration which had appeared on the upper portion of the right forearm were excised. The patient said of the evolution of the process that the lesions came independently of any trauma and were always preceded by a smarting of the area about to become affected. The skin then turned red, changed to green and finally became dark colored. The onset was always sudden. The patient also stated that an ordinary wound always healed rapidly.

The physical examination made after entrance to the Skin Ward of the Massachusetts General Hospital showed no organic disease of the internal organs or the nervous system. The patient was a quiet, intelligent woman, well developed and rather stout. There was nothing suspicious in her manner but concerning her affection she was inclined to be reticent, and her answers were contradictory. The skin of the arms and legs and especially of the front and sides of the abdomen was the seat of very numerous scars of all lengths from one inch to one, extending from the front of the abdomen down over the side, which measured eight inches. The scars all looked healthy, firm and white. Some were smooth, some were slightly hypertrophic. (Fig. 4.)

On the right forearm were two incised wounds which were nearly healed. There were also three excoriations, said to be a beginning eruption, lying together which were superficial, with jagged edges and central brownish crusts. Their bases were inclined upward from the deeper proximal and toward the hand when they became so superficial as to be nearly level with the skin. Their appearance suggested gouging with the finger nails. On the abdomen also were several lesions of a similar character.

No new eruption developed while the patient was in the hospital, and under simple protective dressings the lesions present at entrance—which were said to be similar to those of previous outbreaks—were entirely healed. November 28, 1906, the patient was discharged well.

During her stay in the hospital the patient was thoroughly examined several times by the physicians from the neurological department. They could detect no present signs of hysteria, although they considered that the history strongly indicated that the patient had had hysterical attacks during the past two years. Among other things they discovered that there were several short periods about which the patient could remember nothing. No signs of organic disease or disturbances of function of any part of the nervous system were ever found.

SUMMARY. Female—22.—History of hysteria. Memory of certain periods lacking. Preceding trauma. First eruption in the neighborhood. Upward spread. For a time limited to one part, then occurring elsewhere, but always on accessible parts. No relation to nerve distribution. Spread erratic. Eruption bilateral but not symmetrical. Onset sudden. Outbreaks preceded by smarting on pain. First type of eruption redness, becoming greenish, then forming gangrenous ulcer. Lesions round. Second type—band formation—blanching of skin, slough, while granular exudate. Healing slow. Crops at varying intervals. Numerous lesions excised. Wounds always healed kindly. Ulcers healed rapidly under protective treatment. No outbreaks while under observation. Lesions symmetrical. No evidence of organic disease of internal organs or of nervous system.

CASE 4. T. R., male, 40, married, coachman.

F. H., 16. Father died of old age. Mother and one sister of phthisis. Nine brothers and sisters died of scarlet fever and typhoid.

P. H. Scarlet fever in childhood. Otherwise always has been well. Habits good. Uses neither alcohol nor tobacco. Denies venereal.

P. I. In December, 1905, the end of the right index finger was burned by a spark from a stove. The bur refused to heal and remained open. In March, 1906, it became infected. At first local, the infection soon spread and involved the whole finger, the back of the hand and the extensor surface of the forearm nearly to the elbow. These areas became greatly swollen and inflamed, but the temperature was not high. The bone of the terminal phalanx became involved and was first scraped and then amputated at the second joint. The stump wound healed, but three weeks later became infected. The process, as before, penetrated deeply and the index finger was now amputated at the metacarpo-phalangeal joint.

After the inflammation in the hand and arm had subsided the skin on the back of the hand and the outer surface of the forearm was almost entirely replaced by a thick network of scar like ridges which ran in all directions, here and there enclosing normal skin. The second amputation wound healed in six or seven weeks.

Following the inflammation of the arm, new lesions developed on the hand, at the site of the amputation wound, on the wrist, on the inner surface of the forearm near the elbow and one on the inner surface of the upper arm just above the elbow. These showed no tendency to heal, and were accompanied by great and constant pain which the patient said was of an intermittent character and radiated up the arm to the shoulder and thence over the adjacent upper chest on the right side. It was so severe that his general condition suffered because it prevented sleep. November 20, 1906, he was taken to a private hospital, an incision made in the right axilla and the nerve stretched. The incision wound healed readily. Just prior to the operation he was examined by a prominent neurologist who found marked hyperæsthesia of the whole right arm and the right side of the chest from the shoulder to the breast. At the time of the nerve stretching there was present over the metacarpophalangeal joint of the second finger of the right hand an ulcer which had developed soon after the amputation of the finger. On the right wrist was an ulcer about the size of a quarter and near it two smaller lesions. On the inner surface of the right forearm was a moderately large lesion and on the right upper arm above the elbow was an ulcer nearly two and one-half inches in diameter. These lesions were similar in character. They were round or oval, covered with dark colored, almost black, crusts of varying thicknesses whose upper layers were dry and hard, their lower moist and gummy, and beneath which were profusely secreting, rather superficial ulcers. Following the nerve stretching, the lesions improved and healed considerably, the smaller ones even disappearing. But progress gradually declined as time went on until the ulcers finally reverted to their old sluggish condition. The radiating pain, which had disappeared after the operation, returned with the decline in the process of healing. About one month previous to his admission to the Massachusetts General Hospital there was a new and more abundant outbreak, chiefly over the right upper arm and shoulder with a few ulcers on the right forearm. According to the history obtained, the lesions were always preceded by a stinging in the part which increased to actual pain. Then there appeared on the affected area

a small black spot which slowly increased, attaining in one month about the size of a fifty-cent piece. There was more or less constant, darting pain, worst at night or in cold weather. Within the past few days a few new lesions have appeared on the dorsum of the right foot. The patient denied the use of any irritant applications on the lesions except alcohol. Sleep and appetite have been poor and the general condition has not been good.

The man was admitted to the Skin Ward of the Massachusetts General Hospital, February 26, 1907. T-99, P-93, R-18. "He was well developed, but rather emaciated and anæmic. His manner was quiet, almost taciturn, but watchful. When observed he would become almost immobile; but when alone he often paced the floor, played a tattoo with his fingers or indulged in other minor actions indicative of a certain restlessness. The tongue was clean; the teeth in fair condition; the mouth and throat negative. There was no glandular enlargement. The heart was normal in position and area. There were no murmurs and the sounds were clear. Action regular. The pulse was regular and of good volume and tension. There was no evidence of any disease of the arteries. The lungs were normal. There was no tenderness or distension of the abdomen, and its organs were normal. The reflexes were present on both sides, but exaggerated on the left. Urine normal.

The examinations by Drs. Putnam and Waterman of the Nerve Department showed "diminished sensation over the entire right side sharply bounded by a line a little to the left of the median line. Over this area there was no recognition of pain. There was also loss of tactile sense. The patient suffers no discomfort from touch on the cornea on the right side nor from insertion of a pin into the right nostril. No sneezing. Visual reactions not tested. There is evidence of hysteria."

"The eruption was confined to the right arm and hand and to the dorsum of the right foot, twelve or fourteen lesions in all. At the site of the amputation scar was an irregular lesion, measuring one inch by two and one-half, which was covered by a thick, brownish crust composed of uneven masses piled one on top of the other. From beneath it exuded drops of thick creamy pus. Directly above this lesion, on the dorsum of the hand, is a second lesion of a rounder shape about one and one-half inches by two and a quarter. This, too, was covered by a brownish crust of the same formation which characterized the greater number. This crust was thick, elevated above the level of the surrounding skin, and, roughly, flatly

conical, the central portion being higher than the peripheral. It was made up of a series of superimposed layers. The oldest and uppermost layers had dried to almost leathery hardness and had become sunken so that in the center of the crust there had formed a cup-shaped depression about the size of the end of the thumb. About the edge of the cup a narrow rim of crust projected slightly from which the rest sloped away gradually until it reached the level of the skin. A narrow zone of dusky red skin surrounded the whole. From the edge of a lesion just above two narrow, parallel, brownish lines ran downward toward the edge of the hand as if a liquid trickling down had lightly cauterized the skin. (Fig. 5.) At the junction of the middle and upper thirds of the forearm was a lesion, about one and a half by two inches, similar to the one just described, but of a darker brown. Other lesions were present just below the elbow and on the upper arm and shoulder. In general, the shape and appearance of the crusts suggested somewhat a dark colored oyster shell, the wider and more prominent end being above and the thinner, narrower end below. The crusts all had a characteristic laminated structure with a central cup-shaped depression as already described. The color varied from a light to an almost blackish brown.

There were also several lesions which varied enough from this type to warrant further description. In addition to the lesion on the back of the hand, those on the outer side of the forearm and on the top and front of the shoulder and the one on the outer aspect of the forearm immediately below the shoulder had narrow lines extending from the lower edge downward which suggested the gravitation of an excess of liquid from the main lesion. From the ulcer on the forearm near the elbow there were two of these lines, running downward and outward over the outer side of the forearm, which varied in width from an eighth to a quarter of an inch, contracting and expanding irregularly along their course. The base was dry, in shape concave or bulbous and of a grayish white color. A single, similar grayish colored line ran downward for a short distance from the lesion just below the tip of the shoulder and another line ran from the lesion on the top of the shoulder. The lesion on the front of the shoulder was covered by an almost black hæmorrhagic crust. From this a channel ran downward, similar to those just described, except that its color was very dark instead of gray. Immediately below this is a patch which is not ulcerative like the others, but made up of reddish brown areas of irregular and jagged shapes and sizes, with their long axes par-

allel to that of the arm, which look as if they might have been caused by some trauma passing from below upwards and bruising the skin in its passage. The lesion on the upper arm below the shoulder resembles the others described in its upper portion, but differs in its lower portion in that it becomes more and more superficial as it progresses downwards. The crusting becomes less and less marked, finally disappearing and being replaced by an erythema which streams downward in lines of darker and lighter shades to terminate in ragged projections which are lost in the healthy skin. As stated, a narrow canal runs further down from the lower edge. The radiating, irregular, streaming effect suggested strongly the stroke of a brush unevenly applied. In several of the lesions the brownish crust is surrounded by a narrow grayish white line. All the lesions were said to be sensitive, but of this there was no evidence if they were touched unawares. When the patient realized they were being handled they suddenly became very tender.

On the dorsum of the right foot were three sharply defined lesions, one-fourth inch in diameter, covered by black crusts and surrounded by a narrow erythematous zone. These were of two or three days' duration and were the last lesions to develop."

The crusts of the various lesions were too adherent to be removed easily but by means of corrosive sublimate soaks and poultices, they were gradually softened and loosened. In spite of their formidable appearance the process underlying them was found to be quite superficial, with bright red, easily bleeding granulations bathed in serum. Healing progressed satisfactorily under the corrosive dressings until one day the patient was discovered picking at a nearly healed lesion with his finger nail. He had succeeded in tearing away nearly the entire newly-formed tissue. On other occasions he was seen rubbing the crusts about over the ulcer beneath. In this manner he had caused lesions which had become perfectly dry to secrete profusely. When this secretion dried a new layer had been added to the old crust. Finally, on April 13, the arm was enclosed in a sealed dressing under which healing progressed so rapidly that by April 30, all but three of the ulcers were entirely healed and these three were healing. On the day of his discharge the nurse left the patient for a short time after removing the dressing. Upon her return she found that nearly every one of the lesions had been converted into superficial ulcerations. The patient admitted that he had rubbed them.

On April 1, at 6 p. m. the patient had an attack of twitching

of the muscles of the face, and spasmodic movements of the arms and legs which simulated poisoning by strychnine. The spasms, which followed upon the slightest noise, lasted for but a few seconds and gradually became less and less frequent. The patient was bathed in a profuse perspiration and appeared to be in pain, but when asked about it replied that he had none. The pulse was rapid and thready. Knee jerks were normal. No tenderness of muscles anywhere. After receiving considerable amounts of sedatives he became quiet. It was reported that later in the night he vomited a considerable amount of dark material which did not seem to be blood. The next morning, the temperature which had risen slightly in the afternoon preceding the attack, had fallen and did not rise again. Nothing abnormal could be discovered on physical examination. The patient complained that he was unable to turn over in bed, but when given very slight help he succeeded. He also complained of a pain in the spine between the shoulders which prevented him from sitting up. Nevertheless, he sat up in a very short time. He continued to complain of pain between the shoulders for some days after. Toward the end of April he complained of inability to extend the fingers of the right hand, and this condition persisted up to the time of his discharge.

Dr. Waterman, who had made an examination of the nervous system shortly after the patient's admission, had followed the case and April 27 reported:

"When asked how he had been getting along during his stay in the hospital, the patient said, with apparent relish, 'Well, really, Doctor, I can't say that I am one bit better than when I came in.' This, in spite of the fact that the lesions on the arm had practically all healed. He says, however, that he is in constant pain, although there is no outward signs of this. The senses of touch and pain are almost absent over the right half of the body, face and extremities, while the left half is very sensitive to both. Almost complete hemianopsia. The hearing is much diminished, in the right ear a watch tick being heard at four inches which is heard two feet away on the left side. The right cornea is insensitive to touch and the mucous membrane of the right nostril is insensitive to pin prick. Knee jerks are equal and lively. Pupils equal and react normally."

On May 16, Dr. Waterman made the following report: "The motor disturbance of the right arm is manifested by an almost complete loss of strength, for all movements and the fingers are held in a state of contraction while the arm is flexed at the elbow. All

movements can be made to some extent, and through encouragement the amount of motion is increased. The reaction to faradism is present in all the muscles."

At no time during the patient's stay in the hospital were we able to reproduce the lesions by mechanical trauma. Scratches healed readily and vesicles produced by cantharidis plaster healed without incident. A crust from one of the latest lesions was submitted to a chemical examination, but the result was negative.

After his discharge from the hospital (May 18) the patient came to the O. P. D. on June 29. His appearance was greatly improved and all of the lesions had healed except one area about the size of a cent on the shoulder which was not quite closed over. He said that there was some burning over the sites of the old lesions. Sensation was everywhere normal. Reactions normal.

SUMMARY. Male—40.—Hysteria. Right-sided hysterical hyperæsthesia and anæsthesia. Trauma of end of right forefinger. First manifestation on site of wound. Long continued succession of lesions in crops. Spread of affection upward. First lesion round ulcer. Supposed infection with swelling and redness of back of hand and forearm, but without marked rise in temperature. Ulcer spread, involving bone. Amputation of terminal phalanx. Reinfection. Amputation at metacarpal-phalangeal joint. New ulcerative lesions higher up—superficial, round, covered with blackish crusts. No tendency to heal. Pain in lesions radiating up arm constant feature. Intervals between outbreaks varied. Stretching of median nerve of only temporary benefit. Followed in three months by eruption of different type scattered over upper arm without relation to nerve distribution. Stinging of part, abrupt appearance of black spot spreading laterally. Lesions no longer round, but oval, or spindle-shaped, often with narrow lines projecting downward from lowest portion—some with tails—covered with crusts sunken in center, leathery, laminated, brownish, greenish and blackish—serous discharge from beneath many—some with narrow, inflammatory zone surrounding, some without. Ulcerations superficial. Healing tedious. Closed dressing healed. Lesions re-opened by patient by rubbing. No disease of internal organs. No organic disease of nervous system. Duration of affection about 18 months. No caustics ever discovered, but patient caught moving crusts over underlying ulcers. Admitted later that he had broken open healed lesions.

These four cases presented in common an eruption occurring in crops at various intervals for long periods, appearing first in the

neighborhood of a preceding trauma and with a tendency to upward spread. The eruptions quickly became gangrenous, sometimes with preceding erythema and vesicles, sometimes without one or both. Slow healing was characteristic. In three cases the eruption was limited to one hand or arm, and one, beginning on one arm, involved the body later. The lesions usually appeared at night or when the patient was free from observation. Healing progressed under closed dressing without other treatment. The patients were never detected. Although two patients were discovered rubbing the lesions, it is probable that by this they merely prevented healing and that the original eruption was caused by other means. The eruptions themselves sometimes changed in type in the same patient. The inaccessible parts were exempt from attack. Especially to be noted was the presence, or at least the history, of more or less marked hysteria. No adequate motive for self-mutilation was discovered. Sometimes the eruptions were preceded by subjective symptoms of pain or burning. The lesions resembled those of no known disease.

Continued study led to the conviction that the eruptions were continued, at least, by artificial means even if not artificially begun. In view of the absence of the actual proof of their artificial creation two questions occurred to me which have led to the following investigations. Is the hypothesis of artificial production without positive proof any more doubtful than any diagnosis, say of pneumonia, without an autopsy? Further, how do the cases of so-called spontaneous origin compare clinically with those of known artificial origin? The analyses of the recorded cases, with a comparison point by point, of the cases considered spontaneous with the artificially produced should at least indicate a working hypothesis.

I have used for this analysis ninety cases of either artificial or supposedly spontaneous origin and have excluded from it such as were due to bacteria, arterio-sclerosis or to an organic disease of the nervous system. These ninety cases have been divided into two groups (1) the artificial, which includes those cases produced by self-infliction, and (2) the spontaneous, which includes those supposed to be due to internal causes. In assigning these cases to one group or the other I have tried in every instance to follow the expressed or implied opinion of the reporter. As a result of this classification it is found that 49 cases belong in the spontaneous group and 41 in the artificial.

Sex—43 of the 49 spontaneous cases occurred in females and 6 in males. All the artificial cases were in females.

Hysteria—I wish to lay especial emphasis upon the fact that the analysis shows that practically every patient in *both* groups had suffered from some form of hysteria. In the abbreviated reports of 10 artificial cases and 3 spontaneous, no mention was made of its presence or absence. Of 31 artificial cases 27, or 87%, were hysterical and 4 were said to show no signs of hysteria. Of 46 spontaneous cases, hysteria was present in 40, or 81.6%, and absent in 6 cases.

Age—The age at which the affection occurred most often was the same in both groups, for 90% of the patients with artificial eruptions and 86% of the patients with spontaneous eruptions were under 30.

Trauma—A history of traumatism preceding the first manifestation was as frequent in the artificial cases as in the spontaneous, having been obtained in 44% of the artificial and in 45% of the spontaneous cases.

“Incubation”—Neither group showed a characteristic “incubation period” or interval between the trauma and the first appearance of the eruption. In both, there were cases in which the eruption followed the injury almost immediately, and others in which the first outbreak was delayed for days or months or even years.

Site of first eruption—In the majority of both artificial and spontaneous cases in which there was preceding trauma, the first eruption made its appearance at or near the site of the injury.

Onset—It was characteristic of both groups for the eruption to appear abruptly, to progress to ulceration or gangrene with great rapidity and then to heal very slowly.

Eruption—It could not be determined that either group possessed a characteristic eruption. The commonest lesions in both eruptions were erythema, vesicles, bullæ, ulcers and gangrene which occurred in about the same percentage of cases. Papules or nodules occurred more frequently in the spontaneous cases than in the artificial. Most often the eruption began with an erythema upon which vesicles or bullæ quickly developed, followed by ulceration or gangrene. This mode of development was the one most frequently seen in both artificial and spontaneous cases, but a great number of varieties of the type were met quite often. It was not unusual for lesions to abort in either the erythematous or vesicular stage. Occasionally gangrene appeared without any preliminary stage or perhaps with only one. It was not uncommon to find in one patient all the various methods represented at the same time in different lesions.

Further, there were artificial cases, as well as spontaneous, in which the development changed with the different crops of lesions.

Shape of lesions—Little could be learned about the shape of lesions, as the reports were not only scanty but were also indefinite, not always stating whether the lesion described was a vesicle or an ulcer. Such figures as I could collect showed that the lesions were round in 5 artificial cases and 2 spontaneous; oval in 4 artificial and 4 spontaneous; linear in 12 artificial and 4 spontaneous; angular in 3 artificial and 8 spontaneous.

Inflammatory zone—Singer is often quoted to the effect that “in simulated gangrene the surroundings of the ulcerated or gangrenous area must be irritated. It is not credible . . . that a caustic which causes a rather deep destruction should not disturb the immediate neighborhood of the part directly affected. Swelling and hyperæmia are the most common appearances in the neighborhood of artificially cauterized areas.” This statement is directly contradicted by the experiments of Gross and Narath, both of whom found that by varying the strength and the duration of the application they could reproduce at will any lesion from redness to gangrene often without any hyperæmia or redness surrounding and without any suspicious irregularities. In our series only nine artificial cases are stated to have had an inflammatory zone about the lesions, while it was present at some time in 20 spontaneous cases. Wheals or a general swelling of the part occurred only 6 times in the artificial cases compared to 8 times in the spontaneous.

Crusts—No conclusion can be drawn from the color of the crusts, as the percentage of the occurrence of brown, black, gray, white, yellow or green crusts was very nearly of the same frequency in both classes. Some writers have advised a test of the reaction of the crust as a means of determining whether a caustic has been used. That the test is not to be relied upon for the diagnosis is well illustrated by the experiences of Stubenrauch and Gross, each of whom found the crusts in his own case alkaline. But whereas this reaction confirmed Stubenrauch in his opinion as to the spontaneous origin of the eruption it was proved that the eruption in Gross's case was produced by hydrochloric acid.

Crops—The appearance of the eruption in crops at irregular and varying intervals was equally common to both groups. The outbreaks sometimes followed close upon one another and sometimes were separated by varying intervals of longer or shorter duration. In many instances a series of crops in rapid succession would be

followed by a long period of freedom after which would come another period of crops in rapid succession. In still other cases each crop was succeeded by a long free interval.

Site of eruption—In about 50% of the artificial and 57% of the spontaneous cases the eruption appeared first upon either a hand or arm, after which each succeeding eruption usually appeared higher up than the last. When the trunk was reached all semblance of an orderly progression was lost and the later crops appeared in a haphazard fashion on any part of the body. The rarity of the spontaneous eruption upon the parts which were not easily reached was significant when considered in connection with the fact that the parts most easily accessible were also the very regions most frequently attacked by the artificial eruptions.

Frequency of occurrence—The analysis showed that the eruption appeared upon the back twice in the artificial cases and 9 times in the spontaneous; on the genitals, once in the artificial and once in the spontaneous; on the mucous membranes, twice in the artificial, 5 times in the spontaneous; on the face, 13 (31%) times in the artificial, 9 times (18%) in the spontaneous; on the front of the body, 24 times (59%) in the artificial, 27 times (55%) in the spontaneous cases. That is, the eruption involved the arms, the front of the body and the genitals with nearly equal frequency in the cases of the two groups. The face was attacked more often in the artificial than in the spontaneous cases and the mucous membranes and some part of the back were attacked more often in the spontaneous cases.

Limitation of eruption—As an ascending neuritis is often given as the cause of a spontaneous eruption it is rather surprising to find that more artificial than spontaneous eruptions were limited to one part, for example, to an arm. Forty-nine per cent. of the artificial cases were limited to a single part, but only 22% of the spontaneous. On the body, however, the conditions were reversed for, while of 31 spontaneous cases which involved the body, 52% were confined to one side, out of 29 artificial cases only 41% had such a unilateral distribution. Symmetry was not a marked feature of the bilaterally distributed cases of either class.

Continuance of crops—It has been claimed that the spontaneous cases can be distinguished from the artificial by the fact that the spontaneous eruption continues to appear beneath closed bandages, and while the patient is under the strictest observation. The rule is broken so often, however, both by artificial and spontaneous cases

alike that the claim has no truth. The same may be also said of the argument that the failure to detect the patient points to the spontaneous nature of the eruption, for a number of cases, which were eventually proved to be of artificial origin, were not detected for months. In one case indeed it was five years before the true nature of the eruption was discovered.

Microscopic findings—The varied interpretations of the microscopic findings by the advocates of the spontaneous theory proves that the pathological changes were not characteristic. One man believed that his findings demonstrated the internal origin of the eruption, while another said that they showed an infection. Still a third referred the changes to endarteritis and thrombosis. Brandweiner, who denies the theory of an artificial origin, says that the changes in the early stages are analogous to herpes zoster and that the late changes are indistinguishable from those of a burn or a caustic. The differences found in the changes, Róna says, are due entirely to the use of different caustics in different concentrations, to variations in the methods and duration of the applications and to the varying irritability of the different individuals.

If we now consider this detailed analysis and comparison of the cases of artificial and of spontaneous origin as a whole the similarity of the two groups is so striking in every essential that we may draw the following conclusions.

1. We cannot distinguish clinically between the cases of known artificial origin and those of unknown or so-called spontaneous origin.

2. This clinical similarity justifies us in the belief that the cases of unknown, *i.e.*, spontaneous, origin are due to the same causes as the cases of known origin. The burden of proof lies with those who deny this.

3. The hypothesis of an artificial production without positive proof is no more doubtful than any diagnosis, say of pneumonia, without an autopsy.

Up to the present time no single theory of etiology has been presented which can be applied to all, or even to the majority, of the cases of multiple gangrene. The theory that the eruption is caused by vaso-motor or trophoneurotic changes is obviously incomplete. Some, recognizing its incompleteness, seek a remedy in a pre-supposition of some sore of disturbance in the central nervous system. Other men assign the cause to an ascending neuritis produced by trauma and, to explain the outbreaks on distant parts,

assume that the neuritis, having reached the cord, involves other segments and thence spreads to other nerve trunks. This is, of course, merely an unproved theory. In the absence of atrophy and other signs which usually accompany a long continued injury to the nerve the assumption of an ascending neuritis is not justified even in such cases as are limited to a single part. Further, there are men who are reluctant to admit that any human being would voluntarily submit to such pain and disfigurement and apparently base their conviction of the spontaneous origin of the eruption upon their failure to find the motive or the means of artificial production. Such divergent views must necessarily lead to much discussion. Somewhere there must be a line of evidence leading to the truth. When we examine the comparative clinical analysis previously referred to we find one invariable symptom, i.e. hysteria, the significance of which is receiving greater appreciation just now than ever before. If we follow closely the more recent investigations of the neurologists into the nature of hysteria we shall find a theory so complete as to explain all the previously discovered half truths.

It is of great importance that we should realize that hysteria is no longer considered as a physiological condition. Professor Janet says that "the *psychological* conception of hysteria has the mastery to-day over the physiological conception." Therefore we cannot accept an explanation of the occurrence of multiple gangrene of the skin which is based upon the physiological conception of hysteria. The analysis has already shown us the almost universal occurrence of hysteria in connection with multiple gangrene of the skin. We know also that the two great symptoms of hysteria are somnambulism and suggestion. If, therefore, we accept the psychological conception of hysteria a complete and rational theory of multiple gangrene would be that the patient, while in the psychological condition known as somnambulism, has produced the eruption by artificial means in response to suggestion. Only such a theory as this can explain the limitation of these cases to hysterical patients. It reconciles the apparently divergent theories and explains the similarity of the eruptions in cases of unknown origin to those of known artificial origin. Further, it does away with all need for a motive and with the incredulity which cannot believe self-mutilation possible.

A brief study of somnambulism and suggestion will demonstrate the truth of these statements. Somnambulism may be defined as that hysterical state in which an idea or a feeling takes on an

exaggerated growth which the patient is powerless to check. Because of this unchecked growth, outside the control of the will, that one idea acquires such importance that it finally completely dominates the patient. This is known as somnambulism. During this period of the somnambulistic state all functions are suppressed except those directly concerned in the dominating idea. Although the other functions still exist they are beyond the control of the patient's will. The dominating idea disassociates itself from them and develops outside the patient's consciousness and control. As Professor Janet expresses it, there is a retraction of the field of consciousness. The idea, which in this state of somnambulism assumes such exaggerated growth, may arise from suggestion from without or from within. After a time, the somnambulistic state disappears, gradually or abruptly, but the patient has no memory of the somnambulistic period, and often cannot remember the idea which has recently dominated his whole personality. It is also characteristic of hysteria that in the same way in which an idea takes on an exaggerated growth there may develop beyond the patient's control various sensory disturbances such as anæsthesia, hyperæsthesia, paralysis, etc.

These major symptoms of hysteria may also be accompanied by such minor symptoms as a lack of feeling and of will, with depression and a lowering of the mental level. "The localization of the hysterical accidents on one place or another, or in one function or another may be caused (1) by suggestion from without, (2) by a process akin to suggestion, but which is not identical with it according to the laws of psychological automatism, *i.e.*, individuals who, having had an accident in certain circumstances and having been cured, always recommence the same accident each time they experience an emotion, though it has no relation with the first" (Janet).

We have already emphasized the fact that the cases of multiple gangrene of the skin usually occur in hysterical patients. If, therefore, we view their skin affection in the light of this brief resume of the chief symptoms of hysteria their etiology is clear and simple. The process may be summarized in this way. A hysterical young woman, at some time or other, either wounds herself or sees a wound in another person. After an interval which may be long or short she enters into the somnambulistic state. The wound acts as a suggestion to her. In her somnambulistic condition she is powerless to prevent that suggestion of a wound from attaining an exaggerated importance. It continues to develop until it dominates her whole

personality. She is entirely unable to control either the idea or its power of disassociation. Control of the sensory functions is lost and anæsthesia follows. Finally, she yields to the suggestion of the wound and produces a similar lesion by any means at hand. She suffers no discomfort, as in addition to the somnambulism the part wounded is anæsthetic. She then gradually emerges from the somnambulistic state and views the wound with astonishment. As she has no memory of the somnambulistic period or of the production of the wound, she honestly believes that the wound came of itself. Thereafter, so long as the condition of hysteria remains, any suggestion, even if remote, will reproduce the same conditions and a fresh lesion is made. The recurrences cease only with the cure of hysteria.

If this theory is correct the initial suggestion may arise from a wound, or a tropho-neurotic process, or a neuritis, or from any other cause. The succeeding eruptions, however, are not the result of the initial process nor of the hysteria itself but of an unconscious yielding to an idea of exaggerated growth which forces the patient to self-mutilation, outside her memory and her will.

In conclusion, let me quote again from Professor Janet. "It is, perhaps, not very serious not to recognize a hysterical accident and not to treat it, but what is always very serious is to mistake a hysterical accident for another one and to treat it for what it is not."

Finally, I wish to express my thanks to the Staff of the Dermatological Department for their aid and encouragement and to the Staffs of the Surgical and Nerve Departments for their assistance in the completion of the case records, and finally to the physicians who cleared up many obscure points in the patient's history by their letters.

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FIG. 1.



FIG. 2.



FIG. 3.



FIG. 4.



FIG. 5.

GANGOSA WITH ADDITIONAL NOTES.

By O. J. MINK and N. T. McLEAN.

Past Assistant Surgeons U. S. Navy, Washington, D. C.

Read before the Sixth International Dermatological Congress, New York, Sept. 9-11, 1907.

SINCE the publication of our original paper on this subject, (*Journ. A. M. A.*, Oct. 13, 1906), additional literature, not available at Guam, has been studied, and a few further facts regarding certain phases of the disease have been obtained. At the suggestion of Dr. Fordyce, we will present the facts of our original paper, modified by the recent work and observations.

Definition.—Gangosa, a Spanish word meaning muffled voice, is the name employed by the Spaniards in the Ladrone and Caroline Islands to describe a disease characterized by a destructive ulceration, usually beginning on the soft palate, pillars or uvula, and extending by continuity to the hard palate and nasal cavity, larynx, and even to the face. Active ulceration is followed after a variable period by cicatrization or chronic ulceration. Mutilation always results. Constitutional symptoms are either slight or absent.

Synonyms.—Rhinopharyngitis mutilans (Leys). Ogo (Chamorro).

History and Geography.—The disease has existed in Guam for at least 150 years. In 1828 a Spanish Royal Commission investigating conditions in the Ladrone Islands, recognized and named the disease and recommended the isolation of all patients. It exists throughout the Ladrone and Caroline Islands.

The case from Panama reported by Fordyce and confirmed by Arnold (*Jour. Cut. Dis.*, Jan., 1906), is undoubtedly true gangosa. Dr. Fordyce examined pathological material from two cases from Guam and reports the findings identical with those from the Panama case.

Surgeon J. F. Leys, U. S. N. (*Jour. Trop. Med.*, Feb. 15, 1906), has carefully studied the literature, and mentions reports of rhinopharyngeal ulcerations in Fiji, British Guiana, Jamaica, Italy, Dominica and Nevis. Dr. Leys, who is familiar with the disease as it exists in Guam, has recently discussed the cases found in Dominica and Nevis with Dr. J. Numa Rat, the recorder of these cases, and believes the disease may exist in the West Indies as well as is Poly-

nesia. We have not seen Dr. Rat's original report, but we understand that he reports in his cases an initial lesion resembling a tubercle. None of our cases in Guam showed this condition.

Branch (*Jour. Trop. Med.*, May 15, 1906), reports his cases in Nevis and St. Kitts. He considers them syphilis, and not a distinct disease. His report will be discussed later in speaking of syphilis.

In January, 1907, Musgrave found one case in the Philippines. This case was seen by Dr. McLean, who considered it a case of gangosa. Since then two other cases have been found in Manila. Dr. Musgrave believes there are many other cases, especially in the southern islands.

Etiology—General Prevalence.—Although only 125 cases have been examined in Guam, there are probably 200-250 cases on the island. The population of the island being about 11,000, the ratio is 18-22 per thousand. As the natives of the various parts of the island are intimately associated by religious, marital and commercial relations, no topographical distinctions can be made.

Season.—The limited number of cases seen during the period of invasion, makes it impossible to give any definite statement concerning the effect of season.

Age.—In a series of 80 cases, the ages at the time of invasion were as follows:

First decade.....	2
Second decade.....	38
Third decade.....	23
Fourth decade.....	13
Fifth decade.....	2
Sixth decade.....	2

The youngest ages at invasion were 3 and 9 years; the oldest were 54 and 59 years. From these figures it appears that the majority of the cases start during the second and third decades.

Sex.—In the above series of 80 cases, 49 were in females, and 31 in males.

IMMUNITY:—Surgeon E. R. Stitt, U. S. N. (*Nav. Med. Bull.*, July, 1907), reports a case in a United States Marine, who had been in Guam for several years, and, while there, associated intimately with gangosa families. He developed the disease about four months after leaving Guam. This is the only known case of the disease in

the white race. Dr. Fordyce's case was a negro. Cases in persons of mixed white and native blood are infrequent. The great majority of all our cases appeared in the pure blood natives. The relative immunity of the white and mixed races may be explained by the superior hygienic and dietetic surroundings of these races.

HEREDITY:—There is no evidence showing that heredity plays any part in the transmission of the disease.

FOOD:—The native theory and that held by the Spaniards, gives food a prominent place in the causation of the disease. They believe that such foods as decomposed or very salty fish, especially if eaten raw, uncooked taro and native pepper are the direct causes of the disease. This theory seems improbable. The eating of tainted fish is not more frequent than in any other fish-eating community, and when eaten, the usual symptoms of ptomain poisoning occur. Cases of gangosa rarely give a history of such poisoning. The eating of very salty fish, raw taro and native pepper, is not sufficiently frequent to explain the large number of cases. Furthermore, cases are seen in natives eating the same food as the whites.

A Manifestation of Syphilis.—The disease has been considered a late manifestation of syphilis. During a year and a half in Guam we did not see syphilis in any type among the native population, and do not believe it exists. Our observations agree with those of Leys,¹ who states:

“It [gangosa] appears in healthy and well developed persons of all ages, and no signs of hereditary syphilis in their own persons or in their brothers and sisters; and with no signs of syphilis in their parents. . . . Acquired syphilis is a common disease in most races over nearly the whole world. It is an extremely rare disease here, and neither primary nor secondary syphilis has been seen in a native during the past year, among thousands of persons treated for other diseases, including several prostitutes. This disease is common here, and rare or unknown where syphilis is common. Dr. Daniels, who was in Fiji for years, states that there was no syphilis in Fiji at a time when the lesions of this disease were common. The appearance of the primary lesion of this disease in otherwise healthy children of healthy parents, at 3, 4 and 9 years of age, excludes acquired syphilis.”

In the *Journal of Tropical Medicine*, May 15, 1906, Branch, in speaking of his cases in the West Indies, takes issue with Dr. Leys as to the advisability of considering this condition as a distinct dis-

¹ Leys: “Report of the Surgeon General, U. S. Navy,” 1905, p. 93.

ease, and classes it as a manifestation of syphilis. He offers no proofs, and in the main sums up his article as follows:

“Considering the incalculable importance to the human race of the recognition of syphilis and the difficulty, as yet, of confirming the diagnosis by any certain test, it is most inadvisable to claim independence for any condition which may reasonably be attributed to syphilis, until its etiological individuality can be established. Far better to treat everything as syphilis than to miss the diagnosis of half the cases of syphilis.”

We cannot agree with Dr. Branch in this last statement in so far as Guam is concerned. Tolfree, Leys, Grieve, Bagg and Stitt all agree that syphilis is practically unknown in Guam. During our tour of duty there, we saw no syphilis in the native population, although some 25 prostitutes were examined weekly.

Dr. Branch, says in addition: “I noticed in a hospital report for 1902 (*Colonial Reprints Medical Reports* 1904) that destructive rhinopharyngitis was exceedingly common on the leeward side of St. Vincent, while on the windward side, destruction of the face took its place. Syphilis is equally prevalent on both sides of the island, but the land conditions are very different. . . .” It would seem from this report that the facial ulceration is not a sequel to the rhinopharyngeal lesions, while this was always the case in our series and is, we think, one of the important points in the diagnosis of gangosa. Evidently in the above report, two distinct conditions are included, occurring in different individuals and not in the same person as is the case in gangosa.

Dr. Branch does not state whether his cases reacted to specific treatment, but from the confidence with which he calls the condition syphilis, it is not improbable that this is the case.

A consideration of the above facts and a careful study of the description of the disease as seen by Dr. Rat (abstracted in Dr. Leys' article *Jour. Trop. Med.*, Feb. 15, 1906), might lead to a reasonable doubt that the conditions in Guam and the West Indies are identical.

A Sequel of Yaws.—Gangosa has been described as a sequel of yaws. Only one of our cases gave a history of this disease. While gangosa is limited to a few localities, yaws is a common disease in most tropical countries. We see no reason to consider it as an etiologic factor.

Specific Infecting Agent.—Our observations lead us to believe that there is a specific infecting agent, the nature of which is as yet undetermined. It is believed that in the transmission of the disease

flies are an important factor. The lesions of gangosa are so exposed that flies are attracted in great numbers, and, while feeding on the exudations, their legs, wings and bodies are contaminated. They in turn may infect the patient directly or indirectly through the food. The use in common by all members of the family of such articles as towels, clothing, pipes, cigars and betel-nut, with absence of dietetic hygiene, renders direct infection probable. The individual vital resistance is lowered by overcrowding, 15 to 20 persons, as a rule, sleeping in a small, unventilated hut. The resistance being lowered by such environment, the disease is easily transferred.

Very few facts are available concerning the incubation period. In the case reported by Surgeon Stitt, the incubation period was at least several months.

Inoculation.—We saw no cases which would indicate that infection by inoculation occurs. Dr. Fordyce (JOURN. CUT. DIS.), injected infected material subcutaneously into a guinea pig. Within three months a superficial ulceration appeared, extending from the root of the tail, where inoculation was made, over the back, causing a loss of hair. The guinea pig did not give the tuberculin reaction with 4 mg. of tuberculin, and sections and inoculations from the ulcer were negative.

Morbid Anatomy.—As the disease is not fatal, autopsy is only possible when death results from intercurrent disease. The gross lesions are superficial, and can be observed about as easily in the living as in the dead subject. In speaking of the pathological histology of his Panama case, Dr. Fordyce states (JOURN. CUT. DIS.):

“The lesion was a granuloma, the nature of which could not be determined by the methods employed. It could be differentiated from others of this class, like blastomycosis, actinomycosis, rhinoscleroma and lepra, by the absence of their specific microorganisms; from mycosis fungoides by the character of the infiltrate and the absence of fragmentation. The histologic picture could be readily mistaken for tuberculosis, as the giant cells were numerous, with nuclei arranged peripherally and, as is often seen in that type of inflammation, many independent foci containing three or four such cells were encountered deep in the corium. The epidermic hyperplasia was such as is met with in hypertrophic lupus and other forms of skin tuberculosis; but as it is seen also in blastomycetic dermatitis and other cutaneous inflammations, its presence is of slight diagnostic importance. The existence of a tuberculosis, however, would seem

to be conclusively disproved by the failure of the inoculation and tuberculin tests, as well as by the absence of bacilli in the secretions and sections.

"It is also probable that the affection was distinct from yaws, as such vascular changes, giant cells, small number of leucocytes and great disintegration of fibrous stroma are not characteristic of the latter. It is not unlikely that many of the so-called tertiary manifestations of yaws are in reality not due to that disease, but to another infection identical with the one under consideration.

"It was difficult to exclude syphilis microscopically, but the presence of many giant cells and the less definite perivascular sheathing might be considered in favor of another diagnosis."

Two specimens from Guam were sent to Dr. Fordyce. His findings correspond in all details with those of his Panama case.

SYMPTOMS

Onset.—We observed only three cases from the earliest stages of the disease. The majority of patients present themselves for treatment only after mutilation is marked. In the three cases above mentioned, the initial symptoms led to a diagnosis of tonsillitis, pharyngitis and laryngitis of mild degree. The patients were between the ages of 12 and 15 years, and were in good physical condition. Prostration was slight or absent. All showed a slight rise of temperature and complained of soreness in the posterior nares and pharynx, with stiffness in the muscles of deglutition. In one case, a typical acute coryza was present. Inspection, at this time, showed mild congestion of tonsils, pillars, soft palate and uvula. During the first week, the general condition was practically unchanged.

Local Symptoms.—The throat symptoms became localized, and on the third day a patch of yellowish-gray membrane was observed on the soft palate in the first case, the uvula in the second, and the right pillar in the third case. The membrane was elevated, thick and tenacious. On removal, the denuded surfaces bled freely. Within twenty-four hours of the appearance of the membrane, the typical ulceration was established. On the area covered by the membrane, a number of small depressions appeared. The ridges between the depressions and the membrane were rapidly absorbed. The ulcer, now about one-half inch in diameter, had a punched-out appearance, with undermined edges and a deep, uneven floor, covered with a yellowish-white, very offensive discharge. It was surrounded by a

zone of inflammation about one-fourth inch in width. The depth of the ulcer rapidly increased until, in the cases of the uvula and soft palate, the tissues were perforated by the seventh day. These cases are still under observation.

Course of the Disease.—After the first week, no marked changes occur in the character of the ulcer. It progresses steadily, the rapidity varying with the individual case, destroying the bony and soft parts with equal ease. This active stage may continue indefinitely, or may become arrested at any period. The average duration in those cases of our series, which later became quiescent, was about two years. The active stage in those cases varied from one to seven years in duration. In seven cases, which have never been quiescent, the disease has progressed slowly but steadily, the shortest having continued for ten and the longest for thirty-five years. At any time during quiescence, the disease may again become active. This activity may continue indefinitely or pass into a second stage of quiescence. These alternate periods of activity and quiescence may occur repeatedly. When inactive, the zone of inflammation is replaced by a more or less perfectly scarred area, from which an abundant and very offensive discharge pours. At no time during either stage is the patient's general health materially affected.

Fulminating Gangosa.—This type occurs in children under five years of age, and all cases seen have been in gangotic families. In some instances, two or three children in the same family have been attacked. The sudden onset, extreme prostration, extensive membrane, marked cervical adenitis and rapidly developing toxæmia and dyspnœa give a picture closely resembling diphtheria. Surgeon C. P. Bagg, United States Navy, states that cultures from the throats were negative for Klebs-Loeffler bacilli. Death occurs from toxemia rather than from dyspnœa. The great majority of these cases prove fatal within forty-eight hours, but if the patient survives this period the typical mutilation rapidly develops, and the case follows the usual course.

COMPLICATIONS

All complications result from the direct extension of the disease, and vary in severity with the extent of the ulceration. The principal parts which may be involved are the nose, hard palate and superior maxilla, larynx, eyes, face and teeth.

Nose.—This organ may be totally destroyed. There was some degree of involvement in 65 out of 81 cases. The septum and the

turbinate are early attacked. The supporting structure is destroyed, the external soft parts sink, and later may be destroyed, the organ being replaced by an opening. The sense of smell is destroyed early in the course of the disease.

Hard Palate and Superior Maxilla.—The hard and soft palate may be scarred, perforated, or entirely destroyed. It was involved in 65 out of 81 cases. The destruction of the hard palate starts at the junction of the two superior maxillæ. This deformity produces the typical "cleft palate voice," from which the disease takes its name. The involvement may be of sufficient extent to cause loss and deformity of the upper teeth.

Larynx.—In 81 cases, the larynx was involved in 33. Involvement varies from slight ulceration to total destruction, and as a result the voice is husky or absent.

Face.—Ulceration extends peripherally from the oral and nasal openings, or from the common opening when the upper lip is destroyed.

Eyes.—These become involved when facial ulceration destroys the lids. The eyes were involved in 21 cases. The sequence in destruction is conjunctivitis, corneal opacity, staphylomata and finally blindness.

Tongue.—The tongue and muscles of deglutition were unaffected.

Hearing.—Hearing was affected in only two cases.

DIAGNOSIS

To those who have ever seen a case of gangosa, diagnosis offers no difficulty. The primary rapid ulceration, consequent mutilation and subsequent chronic ulceration produce a picture seen during the active stage. During the quiescent stage, the ulceration is replaced by scar tissue.

Differential Diagnosis.—Gangosa is differentiated from (1) leprosy, by the sudden onset with immediate localization, absence of fatal termination and absence of *B. Lepræ*. (2) Lupus of the mucous membranes, by the sudden onset, local appearance of the throat symptoms, absence of tubercle bacilli, and absence of tuberculosis elsewhere. (3) Syphilis, by the absence of history and symptoms, and the failure of specific treatment.

Fulminating gangosa is diagnosed from diphtheria by the absence of Klebs-Loeffler bacilli and by the typical mutilation in those cases which survive.



PROGNOSIS

Except in the fulminating type, the disease *per se* is never fatal. The mutilations and complications are permanent, and cause corresponding disability. Intercurrent diseases follow a typical course and are not more severe than in those unaffected with gangosa.

PROPHYLAXIS

The contagiousness of the disease has been recognized by the Spaniards in Guam for almost a century. They established a colony for the segregation of these cases, which was discontinued at the time of the American occupation. There is good evidence showing that this abandonment of segregation has increased the prevalence of the disease in Guam. In view of the fact, the Governor of Guam, on April 9, 1906, issued an order providing for the segregation of cases of gangosa. This order went into effect April 18, 1906, and over sixty of the cases were isolated.

In the fulminating type, rigid quarantine should be established, the unaffected members of the family being removed and kept under observation.

Surgeon E. R. Stitt, U. S. Navy in the Report of the Surgeon General, U. S. Navy, 1906, states: "To present briefly the gangosa problem, we have the following considerations: 1. Gangosa is a disease which results in the most frightful mutilation unless it can be checked by measures taken in its incipency. 2. It is considered by all to be a disease which is contagious, affecting in many instances, a large proportion of a family, and in authentic cases those occupying a house previously occupied by gangosa. It is believed to be less infectious than tuberculosis, but more so than leprosy. 3. In one undoubted instance, it has attacked a white man. 4. The liability of the disease to sudden recurrence after a period of quiescence makes it peculiarly dangerous. 5. The experience of the Spanish indicates that by methods of segregation the spread of the disease can be controlled."

TREATMENT

There is little doubt that treatment in the early stages limits the progress of the disease. The treatment is essentially local, and should aim to destroy the infected area. Tincture of iodine applied freely, appears to be the best agent for this purpose. Lunar caustic,

phenol and chromic acid have been used. It is believed that in some cases, the actual cautery would be the most effective agent. An antiseptic mouth-wash should also be used. Tonic treatment, when indicated, should be given. Potassium iodid, even in large doses and long continued, appears to have no effect on the disease. Fordyce, Musgrave and Stitt report the failure of specific treatment in their cases. In chronic cases, deodorants should be used. Potassium permanganate in 1% solution has proved the most advantageous. When possible, complications should receive their appropriate treatment. It seems reasonable to believe that the X-ray, Finsen light, and radiotherapy would be of service in the treatment of this disease, more especially in the chronic external ulceration. In the fulminating type, treatment should be symptomatic, combined with active local disinfection.

THE THYROID AS A FACTOR IN URTICARIA CHRONICA.

By DR. M. L. RAVITCH.

Read before the Sixth International Dermatological Congress, New York, Sept. 9-14, 1907.

THIS ten-minute article is a mere therapeutical suggestion of experience from observation of nine cases of persistent and rebellious chronic urticaria. We know well that as insignificant as is an attack of an acute urticaria, so serious and obstinate to treatment is an attack of obscure and chronic urticaria that it may prove a very formidable affection and may torment the life out of a patient. In regard to its diagnosis, pathology and treatment, it would be superfluous to annoy you with a recital of what is known. I only intend to discuss a more rational and not simply an empirical treatment. I do not pose as an authority. I merely want to state that by careful exclusion of all probable causes of chronic urticaria, we may narrow down to the real cause and, then, we may put chronic urticaria in the category of curable diseases. I may be contradicted by competent authorities, but then, even competent authorities may be wrong. I firmly believe that in a good many cases of chronic urticaria, thyroid extract to be a specific. Thyrotherapy had the same experience as the X-ray has now. When it was first brought to the notice of the profession, its therapeutical value was overestimated. In dermatology, it was going to revolutionize the old regime. False and extraordinary claims were made as to its

specificity in psoriasis, eczema, lupus and other dermatoses. As loudly as it was praised at the beginning, so strongly it was denounced and abandoned afterwards. But conservative investigators were not discouraged by the events. Thyrotherapy was proven to be a very valuable therapeutical agent. In dermatology, Dr. Byrom Bramwell, Paschki and Grosz, strongly recommended it in psoriasis, ichthyosis and lupus vulgaris. As with a good many valuable therapeutical agents, it has its indications and limitations, though it was argued by some that in certain diseases, like eczema, it has a special effect, because it improved in general the circulation and not because of its specification; yet I am of the opinion that it has a far wider and deeper action. According to the opinion of a considerable number of pathologists, in some way not very well understood at present, the thyroid gland has the power of neutralizing poisons and products of auto-intoxication existing in the blood. In the Hygienic Laboratory in Washington, Dr. Reid Hunt has proven that very small amounts of thyroid will protect mice against poisoning by acetonitril; this I believe is the first definite instance in which any antitoxic action on the part of the thyroid has been definitely proven by experiment.

Leopold-Levi and de Rothschild (see *Compt. Rend. Soc. de Biol.*, Nov., 1906), also came to the conclusion that urticaria is not an uncommon expression of hypothyradism, and that the cutaneous lesions are due to an acute intoxication. They cite certain cases of urticaria in women where thyrotherapy caused rapid improvement and cure. Mysterious as the thyroid gland is, so mysterious is its effect. One fact is established in my mind: as thyroid is useful in eczema of the aged where the gland has stopped secreting, so it is useful in obstinate cases of urticaria where the gland is more or less affected or functionally inactive. The connection between the thyroid gland and processes in the uterus has long been known. A good many disorders, particularly nervousness, have been justly attributed to its hypertrophy or atrophy. Abnormality of the thyroid in hysterical people is something more than an accidental accompaniment and that chronic urticaria is an auto-toxemia caused in some way by the abnormal condition of the thyroid is certain. Reasoning from the analogy that the thyroid being a much more active and necessary gland in women than in men and knowing that rebellious cases of urticaria are also found more in women than in men, my conclusion was that in the majority of cases, chronic urticaria was due to the disorders of the thyroid. In my own cases of chronic

urticaria and cases seen with other physicians, from two to four weeks' treatment addressed to neutralizing the toxins elaborated by the diseased thyroid gland produced at once remarkable improvement, and later on, cures. I want to emphasize that in atrophy or functional inactivity but not in very enlarged thyroid glands, desiccated thyroids in combination with *nux vomica* have been used, while in enlarged glands such remedies are to be given as will allay stimulation or cause to diminish the secretion of the thyroid, such as thyroidectin (the blood of thyroidectomized animals), *strophanthus*, bromides and atropin and X-ray.

You will notice that the last four remedies have been successfully used in chronic urticaria, and I attribute their success to their influence in checking or diminishing the abnormal secretion of the thyroid gland.

The Roentgen therapy seems to do better than drug medication. In my own experience and the experience of the well-known X-ray worker, Dr. Freund, and also others, the Roentgen treatment induced unmistakable benefit in all cases suffering from abnormal functions of the thyroid and urticaria due to oversecretion of the thyroid. Under the X-ray the thyroid was reduced in size, the nervous symptoms subsided, and weight was increased in almost every case. Improvement in some cases manifested itself in two weeks, and in two months the patients felt well enough to quit treatment.

As time does not permit me to describe my cases, I will only state that seven out of the nine of my cases were women. I have also noticed, as it is the case with patients with functional disorders of the thyroid, that my patients complained that they were out of order; that they experienced a certain indescribable feeling. I have also noticed that attacks of urticaria come on with the greatest irregularity and without appreciable cause. There being no assignable causes in most of the cases of obstinate urticaria to account for these attacks, you cannot help but to think they must be purely toxic and that functional disorders of the thyroid was the cause of this toxic condition.

ZOSTER ARSENICALIS

By DR. JOSEPH ZEISLER.

Professor of Dermatology, Northwestern University, Chicago.

Read before the Sixth International Dermatological Congress, New York, Sept. 9-14, 1907.

TO judge from the number of publications devoted to it, and the frequency with which it recurs in the discussions of dermatological societies, the question of arsenical zoster does not seem to have lost in interest; nor is there perfect unanimity among observers concerning the causal relationship between the administration or ingestion of the drug and the subsequent cutaneous reaction. While some entertain no doubt as to their direct connection, a few still consider zoster arsenicalis merely as a coincidence—a *post hoc* and not a *propter hoc*. The majority of text books barely mention it, disposing of it with a few words under the head of etiology. To me, the matter seems to involve a double interest: firstly, from the view-point of medicinal reaction, zoster being but one of a great number of cutaneous manifestations following the use of a drug, which is still considerably—not to say too often used in the treatment of many skin diseases; in the second place, as furnishing a valuable aid towards the understanding of the pathogenesis of zoster. A fair number of personal observations have long ago convinced me of the existence of true arsenical zoster, and have prompted me to once more bring the matter forward, in the hope of convincing some of the opposition.

To that careful clinical observer, J. Hutchinson,¹ belongs the credit of first having pointed out, as early as 1868, the intimate relationship of zoster to the use of arsenic. In 1878 his statements were corroborated by Dyce Duckworth,² while J. C. White³ considered the eruption as a mere coincidence. The next important communication was by O. Juliusberger⁴ in 1884, who recorded three cases of zoster following the long-continued administration of arsenic. He, however, also looked upon it as a mere coincidence. In another report again from the same clinic, Neisser's assistant, Epstein,⁵ takes the opposite view, based upon two observations of arsenical zoster. In 1889 Bokai^{6 7} published a statistical study of the question. In 113 cases of chorea, treated mainly by arsenic, he observed herpes

zoster three times, i. e., in almost 3% of the whole number, and always after the administration of the drug for a long period—from 30 to 54 days—at a time when the original nervous trouble was sufficiently improved to allow its exclusion as an etiological factor. The most valuable statistical investigation on the subject has been made by Nielsen,⁸ whose observations, made during a period of twenty-five years, referred to 390 psoriasis patients treated by arsenic. Ten of these developed zoster while still in the hospital. In 220 other cases of psoriasis treated without the use of arsenic, there never occurred a case of zoster. In the year 1898 there appeared an important contribution by L. Geyer⁹ with a careful record of the literature on arsenicism. His study is based largely upon observations in a district where the natural water contains comparatively large amounts of arsenic. After discussing arsenical melanosis, he says: “In Reichenstein also zoster is a very frequent occurrence, affecting the trunk and the extremities, unilaterally as well as bilaterally. The arsenical origin of zoster is still unexplained. It is very probable, though not sufficiently proven, that herpes zoster may be a consequence of the morbid effect of arsenic upon certain nerve trunks.”

In a very careful monograph, Bettmann¹⁰ discusses the whole subject very fully, and gives the details of a case of multiple lymphomata treated by subcutaneous injections of sodium arsenate besides the internal use of Fowler's solution. After about four weeks there developed a typical herpes zoster ophthalmicus, and in addition a generalized pustular eruption, plantar and palmar keratosis, and finally, trophic disturbances of all the nails. He considers his case as a weighty argument in favor of genuine arsenical zoster, on account of its symbiosis with other unquestionable arsenical effects upon the skin.

In his inaugural dissertation, Berthold Stein¹¹ comes to the conclusion that there is no doubt about the existence of true arsenical zoster, but that further observations are desirable.

In more recent literature, reference to the subject is frequently made by Haslund,¹² Bury,¹³ Blaschko,¹⁴ Jadassohn,¹⁵ and others.

In the following I shall submit very briefly, notes of my own observations comprising eleven cases of arsenical zoster recorded in a period of twelve years.

CASE 1. Mrs. W. T., age forty-four years, presented herself on June 26, 1889, with a typical case of pseudo-leukemia (Hodgkin's disease). There were enormous swellings of the lymphatic glands in the region of the neck and axilla and the inguinal spaces. Be-

sides iron and quinine, the chief treatment consisted in the administration of Fowler's solution in gradually increasing doses. Ten weeks later, on the 4th of September, the patient, who lived out of town, visited me again, and with tears of gratitude reported what she considered a wonderful improvement. The glands in the cervical region had shrunk to one-fourth their former size, and a similar retrogression had taken place in all other localities. Quite incidentally, she now called my attention to an eruption which had appeared about ten days before and had since spread. Upon examination, I found a classical, fully developed zoster sacro-femoralis dexter, extending from the sacral region to the outside of the thigh and down to the popliteal space. To my mind, the causal connection of the eruption with the arsenical medication was clearly established.

Once more, on September 15, 1891, I saw the patient again. She had had two relapses of the glandular swellings in the meantime, but always improved under arsenical treatment. Now there was again a slight recurrence. There never had been any further cutaneous reaction since the first outbreak.

CASE 2. C. F. P., twenty-four years: diagnosis: psoriasis. Besides the usual local treatment, arsenic was prescribed internally in gradually increasing doses. Treatment began on September 5, 1889. On January 2, 1890, the patient presented himself with a well-developed herpes zoster brachialis.

CASE 3. H. F. T., forty-two years, November 29, 1889. Lichen planus since about two years, a typical case, particularly well developed on the wrists: on the glans penis—an annular lichen planus. Treatment by arsenic internally. On February 12, 1890, herpes zoster acromialis.

CASE 4. F. E. L., thirty years of age. Psoriasis since twenty years. Treatment begun on February 26, 1890, by Asiatic pills. On March 24, herpes zoster pectoralis.

CASE 5. R. J., twenty-eight years, old psoriasis patient. Treatment with arsenic internally begun June 10, 1890. Six weeks later development of zoster dorsalis on the left side.

CASE 6. F. K. D., thirty-four years old, came under my care on June 27, 1890, on account of an alopecia areata of the beard. Besides other measures, arsenic was prescribed internally. On August 21, the appearance of a zoster pectoralis.

CASE 7. Miss K. W., twenty-two years old, psoriasis. September 10, 1892, treatment by arsenic. Five weeks later there developed an ophthalmic zoster.

CASE 8. D. K., forty-six years of age, lichen planus. Treatment started April 17, 1895. On July 5, zoster pectoralis.

CASE 9. M. A., forty-two years, old recurrent toxic erythema of the supra-orbicular regions. Among other measures, arsenic was prescribed on January 1, 1897. On February 2 there had developed a full-fledged zoster acromio-pectoralis sinister.

CASE 10. B. L., fifty-five years, lichen planus. April 17, 1900, treatment begun by Asiatic pills. On June 21, zoster pectoralis.

CASE 11. W. H., twenty years, a medical student, had been treated by another colleague for psoriasis by arsenic, besides other medication. On the 8th of June, 1902, he visited me on account of zoster of the chest.

It does not seem necessary to me to give detailed accounts of these cases. The main point is that in all of them arsenic was the chief internal medication, and in all of them there developed, after a variable period, and usually when a maximum dosage had been reached, a clinically unmistakable zoster.

In addition to these eleven cases, I have repeatedly observed in patients treated for various disorders by arsenic, what might be termed an abortive zoster or so-called zosteroid eruption. By this I mean a localized, grouped vesicular outbreak which ran a cyclical course without producing pronounced subjective or objective features, very much like a simple herpetic eruption. These miniature zosteres, as I might call them are well known to dermatologists. Hutchinson, for instance, considered them as a particularly characteristic arsenical effect. Gerhardt,¹⁶ in referring to grouped vesicular eruptions after arsenical poisoning, had evidently the same lesions in mind. Their relation to real zoster may be explained in this way, that they are due to an irritative effect of arsenic upon the skin itself, while in true arsenical zoster, the eruption is secondary to an irritation of a corresponding nerve ganglion, or even a central nervous organ.

It will be noted that in my eleven observations, the underlying original trouble was psoriasis in 5, lichen planus in 3, pseudo-leukemia, alopecia areata and erythema each one case. The time interval required for the development of zoster was approximately: 9 weeks, 3 months, 10 weeks, 4 weeks, 6 weeks, 8 weeks, 5 weeks, 11 weeks, $4\frac{1}{2}$ weeks, 10 weeks, and unrecorded in the last case. It varied, therefore, from $4\frac{1}{2}$ weeks as the shortest period to 3 months as the longest. It always occurred while the patient was still taking his arsenic, and usually when a high dosage had been reached. It

seems to me that the direct connection between the medication and the subsequent eruption of zoster in all these cases is easily established. To consider the appearance of zoster in all of them as a casual occurrence, would mean to wilfully ignore the chronological development of clinical phenomena. After all, zoster is not a very common affection, nor is lichen planus, which in my own and the observations of others, frequently forms the underlying disease, a very ordinary trouble. To believe that two such cutaneous disorders should so often happen together as a mere coincidence would be strange logic.

Admitting the causal relationship, the question now occurs, if the vesicular eruption following the use of arsenic is a true zoster or a medicinal rash, as Lewin¹⁷ would have it. To me the answer seems simple. Zoster is a clinical, not a pathological entity. A grouped vesicular eruption in a localized territory, following the course of one or more cutaneous nerves, usually unilateral and running a definite cycle, is always called a zoster, whether it is of traumatic, toxic, ganglionic, peripherally nervous or any other origin. In the same way we call an ephemeral pomphous eruption always urticaria, no matter which of a dozen local or internal causes may have brought it on. We might further remark that were the eruption following arsenic a medicinal rash and as such due to a peculiar idiosyncrasy of some patients, it would recur after repeated medication. The fact remains, however, that after patients have once gone through an attack of arsenical zoster, they can safely continue with the use of arsenic without the risk of a second attack. They practically acquire immunity against it in the same way as other zoster patients.

In this connection I might mention Stark's¹⁸ contribution, who reports a case of facial zoster in a patient treated by Fowler's solution for an ordinary acne. This patient showed after three weeks, a slight relapsing vesicular eruption, which, however, lacked the classical features of a true zoster, and was probably one of those ephemeral rashes to which we have referred.

As to the time involved between the beginning of the medication and the appearance of the zoster, or rather, the amount of arsenic necessary for its production, opinions differ somewhat. Blaschko¹⁴ in a discussion of the subject before the Berlin Dermatological Society, states: "Not the maximal dose of arsenic, but the tolerance of the patient is of importance." He observed a patient who, after minimal doses of arsenic, showed severe symptoms of intoxication,

anidrosis, zoster and general dermatitis. Jadassohn¹⁵ in his contribution to the knowledge of lichen planus says: "About arsenical zoster I have nothing new to report. I have observed it not at all rarely—three times out of my last thirty-three cases. Once I could confirm the repeatedly made observation that it appears after relatively small doses, but that later, even with much more energetic treatment, zoster did not recur."

My own material, on the other hand, would rather teach that zoster developed only after arsenic had been taken for several weeks or months, *i.e.*, that up to a certain point there existed a tolerance for the drug, but beyond that a reaction would follow. The element of idiosyncrasy cannot be entirely eliminated, but that is a matter which it is difficult to analyze. Why do only a few of the many patients treated by arsenic develop a keratosis? Why is epithelioma, after all, a rare consequence of the same cause? The structure of the skin and general constitutional conditions certainly must play an important rôle in this respect.

Another interesting question is why arsenic should attack one special territory for the production of zoster. Nobody can answer this in a positive manner. By way of analogy one might refer to the development of zoster after poisoning with carbon monoxide gas; also medicinal rashes after a great many different drugs, often showing localized effects. We might refer, for instance, to localized urticaria after antipyrine and other anti-febrile drugs, the localized bronide and iodine eruptions, etc.

That arsenic carries with it a certain affinity for the nervous system, especially the peripheral nerves, is based on several observations, as for instance by Barton.¹⁹ Such an affinity would offer the best explanation for the pathogenesis of arsenical zoster.

In regard to the relation of the underlying disease treated by arsenic to the consequent zoster, nothing definite can be stated. Psoriasis seems to furnish the majority of examples, naturally on account of its frequency. With lichen planus it has often been noted. Lymphatic swellings have been mentioned by Epstein,⁵ Katzenstein,²⁰ myself and others. I have referred to chorea. Without giving an explanation for it, I might say that in a large number of cases of dermatitis herpetiformis, which I as a rule treat by arsenic, I have never observed a consequent zoster.

In regard to other effects of arsenic upon the skin, I might quote Brouardel,²¹ who describes the various forms of arsenical eruptions and mentions eleven different manifestations: 1st,

erythema; 2nd, papular exanthema and urticaria; 3rd, purpura; 4th, vasicular herpetic and zosteroid eruptions; 5th, bullous eruptions; 6th, pustular and ulcerative lesions; 7th, melanosis; 8th, keratosis; 9th, œdema and hyphidrosis; 10th, alopecia and trophic disturbances of the nails, and 11th, carcinoma.

In regard to two of these forms which have for some time been of considerable interest to dermatologists, I might say that keratosis and epithelioma are, in my experience, the result of long continued medication, while zoster occurs after comparatively shorter periods. It has taken a long time and many observations to finally convince some obstinate clinicians of the existence of genuine arsenical keratosis and of arsenical epitheliomata. To-day there are probably few doubters on these points. In a similar way I trust that the existence of true arsenical zoster will soon be universally admitted.

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RADIOGRAMS OF SYPHILIS OF THE LONG BONES.

By MARTIN W. WARE, M. D.,

Adjunct Surgeon, G.-U. Dept., Mt. Sinai Hospital; Surgeon to the Good Samaritan Dispensary; Instructor in Surgery, N. Y. Post-Graduate Medical School and Hospital.

Abstract of article read before the Sixth International Dermatological Congress, Sept. 13, 1907.

SYPHILITIC affections of the bones have been the last of the bone diseases to be subjected to X-ray examinations. Whereas it cannot be claimed that a pathognomic picture can be obtained in every instance, yet a succession of these radiograms shows a uniformity in the type of the findings which correspond in a striking manner with the gross pathological findings of syphilis of the bones.

We are therefore justified in speaking of the "characteristic findings" which, taken in conjunction with the data of the anamnesis materially add to the certainty of the diagnosis. Furthermore, a prognosis may be based on the radiograms and the efficacy of treatment estimated by the regressive changes visible in successive radiograms.

As exemplifying a typical finding mark the circumferential thickening of the periosteum. It need not follow that the thickening should be circumferential and symmetrical. It may be localized, and this is apparent to a large extent in all the radiograms. In fact, this predominance of the thickened periosteum—aside from other bone changes—stands out conspicuously in favor of syphilis of the bones, as distinguished from the chronic infections of the bone. The interpretation of this shadow is that we have to deal with a gummatous deposit. In some instances this gummatous material encroaches upon the cortex of the bone. At some levels it becomes fused with the cortex materially contributing to the thickening of the bone. At other levels, it remains quite distinct. In other instances again, the intensity of the shadow of the periosteum leads one to infer a deposit of lime salts in the periosteum. On the other hand, translucent areas in the periphery of the bone speak for the destruction of the gumma, and bone absorption. If the subperiosteal gummatous deposit be situated in the interosseous space, its diagnosis would escape detection, were it not for its exposition by a radiogram.

Finally, the thickened periosteum may be lifted from the bone beneath.

In the bones we note an increase in their diameter, the distinctions in the shadows perceptible in a normal bone become obliterated, the corticalis appears as a denser shadow of wider extent and irregular in its outlines, often encroaching on the medulla to such an extent as to obliterate it. This is due to gummatous deposit in the bone. This may be irregularly deposited, giving rise to a striated appearance of the bone. If, as in the periostitis, this gummatous material breaks down, we have areas of more or less translucency, surrounded by areas of greater bone activity (osteosclerosis) which appear as dense shadows. The gummatous deposit of the periosteum in the bone, is attended at times by a growth in the length of bones wherefore a bowing of these bones can be made out (Fournier).

Of great service is the use of the X-ray in aiding us to differentiate between a tuberculous and a syphilitic dactylitis. The distinctions are by no means always so easily made out.

These are, in substance, the findings in syphilitic affections of the long bones of acquired and late hereditary syphilis.

CORRESPONDENCE.

October 18, 1907.

To the Journal of Cutaneous Diseases;

In the *Annales de Dermatologie et de Syphiligraphie*, T. viii, No. 6, for June, 1907, p. 387, appears an article entitled, "Epitheliomatose d'Origine Solaire," by Dr. W. Dubreuilh, of Bordeaux. In his discussion of the subject he refers to a paper by myself published in the January number of the *American Journal of the Medical Sciences* for 1906, entitled, "On the Influence of Light in the Production of Cancer of the Skin."

Dr. Dubreuilh in his elaboration of the subject, accepts the conclusions formulated in my communication, but discredits my arguments because he asserts the official figures to which I referred, taken from the Census Reports of the United States for the year 1900, are "defective." He is evidently under the delusion that the classification of "Cancers of the Head, Face, and Neck," adopted by the Census Bureau, includes those of the mouth, tongue, and lips, an inclusion which would work serious havoc in any scientific deductions made after a study of the figures I have quoted.

It seems to me incredible that Dr. Dubreuilh should have fallen into this grave error by reason of not acquainting himself with the facts. The truth is that the Census Reports of the United States, although establishing a group of Cancers of the Head, Face, and Neck, furnish statistics wholly distinct from these last, where are tabulated Cancers of the Mouth, Tongue, and Throat. These cases are *not* included in the former group. The defects therefore which Dr. Dubreuilh thought he discovered exist solely in his imagination; and are the fruit of his obvious failure to consult the proper authorities before discussion of his subject. (Twelfth Census of the United States, Vital Statistics, Part I, 1902, Washington, United States Census Office, p. 266 and 269.)

The "arguments statistiques moins nombreux mais mieux triés" which Dr. Dubreuilh adduces, suffer therefore a grievous disadvantage in the comparison, both as to fact and number.

I am pleased naturally that our distinguished colleague should agree with my conclusions, but could have wished that his "arguments" were better placed.

I am, etc.,

JAMES NEVINS HYDE.

BOSTON DERMATOLOGICAL SOCIETY.

March meeting.

DR. GEORGE F. HARDING in the chair.

Scleroderma; a Case of. From the service of DRs. C. J. WHITE and BURNS.

Kenneth H., ten years of age. The cutaneous disease is of two years' duration. When first noticed on the thigh it had already attained the size of a dollar. Since, other lesions have appeared; near the umbilicus, on the right pectoral region and on the right groin and leg. The area on the left thigh is roughly Y shaped with dimensions eight inches long by two broad. It is of a dead yellowish white hue with numerous dilated arterioles near its periphery. The quadriceps extensor muscles are sufficiently compressed to cause some stiffness of motion in the left leg. The plaque to the immediate left of the umbilicus is angular in shape having sides four inches in length. This lesion is similar in color and texture to that above described. The remaining lesions are circumscribed and from one to three inches in diameter.

The patient's antecedents seem unimportant. He suffers from a congenital defect of the optic nerves and in addition, for several years, has his choreiform movements of the face which are said to be of central origin.

Prior to coming to the Massachusetts General Hospital he attended

the Kindergarten for the blind at Jamaica Plain where he exhibited ordinary intellectual ability. His physical examination discloses nothing else of importance.

The treatment in this case, until a short time ago, consisted in strapping the affected areas with salicylated soap plaster which in the course of eight months has considerably softened them. For the past three weeks glycogen has been administered in the dose of gr. 1 four times a day. In the short time this treatment has been essayed palpable improvement seems to have occurred by softening and diminution in size of the lesions.

Hysterical Malingering; a Case of. From the service of Drs. C. J. WHITE and BURNS.

The subject of this remarkable condition is a coachman, forty years of age, whose excellent personal and family history lends little interest to the affection under consideration.

It appears from the patient's account of the onset of his trouble, that a year ago last December his right middle finger was burned by a spark from a furnace. The burned finger became septic, finally exposing the bone, and on account of the severity, the distal and middle phalanges were amputated. The wound healed in six weeks but a little later the cicatrix ulcerated, forming a sore at the stump, on account of which the remaining phalanx was amputated. The wound from the second amputation had scarcely healed when a thick blackish crusting lesion, $\frac{3}{4}$ of an inch in diameter, appeared over the metacarpal articulation of the amputated finger, while immediately consecutive, a major portion of the back of the right hand and two-thirds of the extensor surface of the corresponding forearm became affected with large crusting lesions; ethymatous in character. A major part of the summer of 1906 was consumed before these lesions were healed. The cicatrices resulting from them are pronounced and denote the severity of foregoing process.

Last November the nerves of the brachial plexus were stretched by a surgeon who regarded the process as a tropho-neurosis. The scar from this operation may be seen in the anterior axillary line. Matters remained quiet until a month ago when the most extraordinary manifestation of all occurred. The patient said that he had some premonitory itching in the right arm. Soon there began to appear, sometimes singly, sometimes in groups, small red spots which before attaining a size larger than a bean, invariably took on blackish crusts. These lesions progressively enlarged until they attained their present extent. In all, the arm presents ten lesions; all discrete and varying in size from one to three inches in diameter. They are round or oval in shape and consist of thick, blackish brown crusts with concentrically arranged ridges, i. e., rupial in character, situated on an ulcerated base. Some streaks ending in small drop-like enlargements diverge from the peripheries of several lesions, which, ex-

cept that they are more superficial, partake of the same character as the main lesion. Several small crusting areas are also present on the dorsum of the right foot.

Physically the patient is well except for certain nervous symptoms which are of interest in connection with the process on the skin.

The whole right half of the body is hemianæsthetic; even the bulbar conjunctiva and nasal mucus membrane are insensitive when touched with the head of a pin. Motion of the right arm is impaired. The right patellar reflex is decidedly exaggerated.

The nervous symptoms are held to be, by the neurologists, with whom we have consulted, stigmata of hysteria. These nervous symptoms, in conjunction with character and evolution of the cutaneous process incline us to the belief that the latter is self-produced.

DISCUSSION.

Malingering being notoriously so difficult to prove beyond a doubt, expressions of opinion as to the nature and especially etiology of this case were generally conservative. The singular configuration of the arm lesions and their lamellated crusts, in conjunction with their extreme chronicity, suggested lack of harmony with a process promoted by natural causes; while on the other hand, the peculiar crusting character of the lesions with their bizarre shapes were quite compatible with a condition capable of being produced by artificial irritation. The symptoms disclosed by the neurologic examination lent material weight to the supposition of malingering.

Raynaud's Disease, a Case of. Presented by Drs. C. J. WHITE and BURNS.

This patient has been presented before a previous meeting of this society and since that time, two years ago, her disease has made almost no visible progress. The hands are the only parts affected. The process began four years ago, in the winter, as paroxysms of redness, pain and tingling sensations which became intensified as they recurred. As warm weather approaches the symptoms gradually abate. During an attack plunging the hands into cold water seems to afford the greatest relief. Each year with the advent of winter the condition has relapsed. Gradually the nutrition of the skin, in the regions involved, has become affected, the atrophic changes resulting therefrom being apparent.

The condition of the hands this evening is practically that presented by them two years ago. Both hands are of a pinkish red hue and distinctly cool, becoming cooler towards the ends of the digits where the greatest degree of atrophy is present. The skin there is of a dead pinkish white color with a waxy quality to the touch. Atrophy of the finger tips is especially pronounced where ulceration and loss of nails has occurred in several of them. There is also considerable loss of sensation and motion in the fingers.

The patient's family history reveals nothing of interest in relation to the affection in question. Her previous personal history is good. Phys-

ical examination, made repeatedly during the past two years, has constantly disclosed only mild anæmia and low blood pressure.

For the past three weeks the patient has been treated by hydrotherapy from which much subjective alleviation and almost complete cessation of the paroxysms has been attained. We think that it should be added that the equable temperature and favorable regime of the hospital ward has probably contributed materially to the improvement. The hydrotherapeutic treatment has consisted in a daily electric light bath of ten minutes duration followed by a cold spray douche.

Lupus Erythematosus of the Congestive Variety. Presented by DR. ABNER POST.

This boy, whose age is nine years, has had an affection of the left side of the face for the past ten months. Starting insidiously, the process has slowly spread until it has attained its present dimensions and characteristics. On the left temporal region there is a somewhat irregularly rounded area an inch and a half in diameter palpably elevated above the level of the skin and moderately infiltrated. It is of a light erythematous hue, with its central portion noticeably depressed; suggesting involution of the process. A little lower, on the same side of the face, there is a smaller, elongated lesion, about the size of a large bean which for the greater part has an atrophic appearance, but also has a noticeable light red hue about its periphery.

This case was unanimously declared an example of congestive lupus erythematosus.

A Case for Diagnosis. Presented by DR. C. M. SMITH.

A female patient 28 years of age and married, has had an eruption on the legs for the past four weeks. She has two living healthy children and has never had a miscarriage. Last summer there was a dollar-sized patch on the left leg, red, slightly scaling and somewhat pruritic which disappeared with the return of cool weather. The present eruption was first noticed four weeks ago on the calf of the right leg. From thence the eruption spread over the whole of the right leg, including the dorsum of the foot and the thigh for a short distance above the knee, while almost simultaneously corresponding regions on the left leg became affected. The lesions are papules, deep red in hue, infiltrated, and some of them with rather flat and shining surfaces. They are almost entirely discrete in arrangement and are disseminated over the affected regions with moderate profusion.

DISCUSSION.

This case was generally regarded as lichen planus with rather obscure features. Syphilis was considered but not seriously. The plane and angular shape of some of the lesions in conjunction with the itching, which seemed a prominent symptom, lent more weight to the probability of lichen planus than to the latter disease.

Primary Lesion of the Lip. Presented by DR. ABNER POST.

In this case a large initial sclerosis was seen on the middle portion of the under lip. It had developed from an insignificant abrasion of the mucus membrane noticed first five weeks previous. General adenopathy was present as well as a faintly discernable macular roseola.

F. S. BURNS, Secretary.

BOOK REVIEW

Mittheilungen aus der Wiener Heilstätte für Lupuskranken, herausgegeben von PROF. DR. EDUARD LANG. Erste Folge. Mit 38 Abbildungen. Wien, 1907. Kommissionsverlag von Josef Safar.

This pamphlet contains several short papers describing a hanging apparatus for various therapeutic purposes, and some newer improvements in the technical application of the Finsen light by A. Jungmann, also a report on some experiments made on animals to show the effects of the X-rays on the ovaries during pregnancy. The principal part is taken up by Dr. Jungmann's report on the working of the Vienna Institute for the treatment of patients affected with lupus, during the year 1905. Among 694 patients treated there were 460 cases of lupus and 234 of chronic skin diseases. They were partly treated by operation after the method used so successfully by Prof. Lang (52). With the Finsen light 160 were treated, among them 146 affected with lupus, and 12 cases of lupus erythematosus; 82 were treated with X-rays and 28 with applications of radium. The results of the operations were as satisfactory as in other series published before; the Finsen treatment has given very different results: 20 practically cured, 32 very much improved, 18 improved, in some the treatment could not be continued long enough and in a small number it was entirely unsuccessful. Patients with severe complications in the lungs or the larynx, or with affections of the glands, ought not to be subjected to the long-continued Finsen treatment, because the lupus is the least important part of their troubles; glandular swellings ought to be treated first with X-rays, which have a much more powerful influence on the same, also very severe and very extensive lesions in which, at best, only improvement can be expected. Often local treatment has to precede the Finsen treatment. Careful attention is given to the indications for operation and for the combination of operations with the Finsen light or other methods. Lupus erythematosus gave satisfactory results in some cases, but in others proved as ineffective as other methods. The X-rays are of value in some conditions preparatory to the light-treatment, partly favorable in some hypertrophic forms, but only in few cases is a practical cure obtained. With radium no definite results have so far been obtained. Short histories of all the cases and numerous illustrations showing the conditions before and after treatment accompany the report.

H. G. K.

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THE OPSONIC METHOD IN SKIN DISEASES.

By ARTHUR WHITFIELD, M.D., F.R.C.P.,

Professor of Dermatology in King's College, London; Physician to the Skin Department, King's College and Great Northern Central Hospitals.

Read before the Sixth International Dermatological Congress, New York, September 9-14, 1907.

IN attempting to give an account of the method introduced by Wright and Douglas for the diagnosis and treatment of bacterial infections by means of the injection of appropriate vaccines and the estimation of their effects on the blood, the subject naturally falls under two headings, namely, the description of the technique and the results obtainable by the method.

I do not know whether or not I am performing an unnecessary task in describing the technique, but since I am presumably addressing an audience chiefly composed of those who devote their time to the study of skin diseases, and it is practically impossible to keep abreast of the whole of medical literature, I think it wise to say a few introductory words on this part of the subject.

Leishman, while working with Wright, found that by mixing measured quantities of fresh blood with suspensions of various micro-organisms, keeping these mixtures for a given time at blood heat, and afterwards making stained films from them, that a variable number of the micro-organisms were ingested by the phagocytes in the blood of different individuals. Wright and Douglas, after somewhat modifying the technique, carried out numerous ingenious researches and made several new discoveries. The method now used is shortly as follows:

1. The serum only of blood is used and is obtained by drawing off small quantities of blood from a needle puncture and allowing it to clot and the serum to be expressed.

2. An emulsion of the bacterium in question is made by mixing it (grinding if necessary in an agate pestle and mortar) with 1.2 per cent. salt solution and centrifugalizing for a short time or allowing

to stand for a long time in order to allow the larger masses to settle out. If the tubercle bacillus be the organism used it is necessary to heat it previously to 100° C. in order to destroy its tendency to agglutinate.

3. Living white corpuscles are prepared by dropping fresh blood into a normal saline solution containing also .5% sodium citrate to prevent clotting, centrifugalizing down the corpuscles, removing the citrate and substituting 1.2% saline, again centrifugalizing, removing the supernatant saline and then collecting and thoroughly mixing the top third of the sediment. This forms an emulsion of red corpuscles with a high percentage of white corpuscles in 1.2% saline.

By those working with the method this is known for convenience as "leucocytic cream" or shortly "cream."

Before actually detailing the method of procedure it may be well to offer a few explanatory remarks. As there is at present no fixed point to work from in estimating the number of bacilli which should be taken up, it is necessary to compare the blood under examination with that of a normal person, or the mixed bloods of many normal persons, often designated a "pool."

The normal standard is arbitrarily fixed at 1.0 and deviations from this are reckoned in decimal fractions on either side of the normal. The following experiments have been carried out by Wright and Douglas, and others:

1. The leucocytes of a tubercular patient and the serum of a normal person + tubercle bacilli give a result identical with that obtained when the same serum and emulsion are associated with leucocytes obtained from a normal person.

2. The leucocytes of a normal person and serum of a tubercular person + bacillary emulsion give the same results as those obtained when tubercular leucocytes are associated with tubercular serum and bacillary emulsion. From these experiments is deduced the fact that in variations of phagocytosis the cause of the variation lies with the serum and not with the leucocytes.

3. Heating the serum to 60° C. before use causes it to lose its power of inducing phagocytosis.

4. If, however, the serum be mixed with the bacillary emulsion, allowed to stand for some time at body heat, and the mixture then heated to 60° C. for ten minutes the results obtained with the heated mixture are similar to those obtained with an unheated mixture.

It is therefore agreed that the action of the serum is one upon the bacilli and not the leucocytes, and this action once established

is not destroyed by heating to 60° C. Having thus proved the presence in blood serum of a body which is capable of acting on bacilli and rendering them easy of phagocytosis by the leucocytes, Wright and Douglas then named this new body "Opsonin" from *opsonio* "I prepare a feast."

To perform an estimation, amounts of cream and emulsion are prepared sufficient for several observations, since it is essential that in comparing two or more sera the cream and emulsion shall remain the same. It is also of paramount importance that the sera to be tested shall have been drawn from the body at approximately the same time and kept under the same conditions, since changes take place in the sera after being withdrawn from the body, these changes being first a rise and then a fall in the opsonic power.

Having the sera, the cream and the bacillary emulsion in readiness, a moderately fine pipette is fitted with a rubber teat, a number marked on the thick part and a small mark made on the capillary portion about an inch from the end. Cream is drawn up to the mark on the tube, the point is then removed from the vessel containing the cream and the column allowed to slide about a quarter of an inch up the tube, which is then wiped. Bacillary emulsion is then drawn up in the same way, the volume being separated from that of the cream by a small column of air. Now another column of air is taken and finally a volume of serum. The reason for this order is that the cream being rather thick offers a good deal of resistance to being drawn up and consequently the column remains steady and is easy to adjust, the jerking backwards and forwards of the column being a great source of difficulty to the beginner. Serum is taken last because this is the variable quantity and the slightest contamination of the other fluids by it might vitiate the whole experiment. Personally I always take two volumes of cream to one of each of the others, as I find I get better films in this way.

In the original method of Wright and Douglas normal saline was used to sustain the corpuscles and bacilli, but from experiments these observers made it was found that a certain amount of "spontaneous" phagocytosis occurred in the absence of all serum^{*} and this was reduced to a minimum by the use of 1.2% saline.

As soon as the three volumes are obtained they are blown out onto a clean slide and thoroughly mixed by alternately sucking up and blowing out, bubbles being avoided. The mixture is then drawn up into the pipette in a single column, the end sealed and the tube placed in the incubator at blood heat for a quarter of an hour. In

practice as soon as one tube is put in the chamber another is got ready, so as to have a series going. I find I can easily get eight tubes in a quarter of an hour and have done as many as ten in this time. At the end of the period each tube is taken out, the end broken off, the fluid again thoroughly mixed and films made and stained. For fixing the films saturated perchloride of mercury is used, for staining the tubercle bacillus hot carbol-fuchsin, followed by 2.5% H_2SO_4 , as recommended by Wright, and an after stain of borax-methylene blue. For other organisms the blue alone gives good results. Having obtained the films one counts the number of bacilli taken up by a definite number of leucocytes (I count forty) in the control and compares this with the number taken up in the samples to be investigated, and thus one obtains the opsonic index.

Having thus described the method I may now pass on to the results obtainable by it. The first question which arises is: Are these figures reliable? Now, full as the method is of apparent sources of error, my mind is quite made up on this point. With a good technique in experienced hands, an error of 5%, or at the outside 10% may occur. I state this with confidence, because for nearly three years I have had a friend working next door to me in the laboratory, and to save time the first down in the laboratory makes cream and bacillary emulsion for both. We use our own bloods as controls and we have compared notes on so many occasions and found almost invariably an error of less than 5% that I feel sure of my ground. Also, on many occasions when Wright was dealing with a case and I took the samples I have taken two samples and worked one out on my own account to control my own accuracy. Occasionally, it is true, something may go wrong with an estimation, but it can practically always be suspected and the estimation rejected. On the other hand I do not wish to make out that the technique is acquired in a few minutes, because it is not so, and I have seen with deep regret all kinds of perfectly ludicrous statements published, evidently based on bad technique of the crudest variety.

Next we may inquire in what way the estimation of opsonic index may be of use to us in practical medicine. There are two ways in which it may be used, namely, as a means of diagnosis and as an aid to the regulation of dosage in treatment.

In the first place it has been suggested that the opsonin is the chief defensive body, but I do not think Wright himself has ever strongly asserted this, and in conversation with me he has stated his

belief that it is only one of the defensive bodies produced by the host.

It is possible, however, that the opsonic index varies with that of the immunity as a whole and is therefore a true index of the power of resistance of the patient. From several observations I believe this to be generally the case, but I am positive that it is not invariably so. I have carefully watched a case in which the disease was progressing and in which new foci were appearing while the index as examined twice a week was steadily high. Here I regret to say that I am in opposition to Wright, who believes that the high index associated with infection is never maintained, but is only a phase in the oscillations.

In the examination of the index in a large number of healthy persons Bulloch found that it ranged between .8 and 1.2, but I would point out that these extremes were very rarely met with and that the vast majority of Bulloch's observations fell between .9 and 1.1. On the other hand if a number of diseased patients be examined it will be found that few lie within the normal limits for any considerable period. Most are found to be low, .8 and under, while a good many are high, 1.3 and over, and I have already stated that Wright believes that the high cases are either dealing satisfactorily with a lesion or are oscillating. Certainly oscillation is a marked symptom suggesting infection in a doubtful case, and it is therefore well to take two or three observations before making a diagnosis or even commencing treatment in a case where the disease is known. From the diagnostic point of view, therefore, we may say that a high, low or oscillating index is suggestive of infection with the organism in question.

Referring back one moment to the question as to whether the opsonin is the only important body in immunity in those diseases due to a bacillus which is chiefly endotoxic, my friend, Dr. Briscoe, has performed some very interesting experiments. It is well known that heating to 60° C. destroys the opsonins. Dr. Briscoe immunized animals to different bacilli (actually to Friedlander's pneumo-bacillus and to staphylococcus pyogenes) on three occasions and when their opsonic index was high drew off some of their blood, exposed it to a temperature of 60° C., determined the opsonic index in the heated serum and found it practically zero and then injected equal parts of the heated serum and bacillary emulsion into animals, using as a control equal parts of the same bacillary emulsion and salt solution. In the case of a very virulent pneumobacillus the control died in ten

hours, whereas the animal which received the heated immune serum mixed with the bacilli survived three days, while with less virulent organisms the control animal died and the experimental animal was not ill. This would indicate that there is another body present besides the opsonin, but the opsonic index being high at the same time, it may be that the index is reliable to show the state of immunity of the blood.

The heat test has been used also as an aid to diagnosis since it has been found that the opsonin present after inoculation and in those suffering from the disease is not so entirely destroyed by heat. This appears to me to be quite unreliable, since a patient of mine who had had numerous injections of tuberculin, some of them very recent, fell from .95 to .14 after heating for ten minutes to 56.5. Lawson, of Banchory, maintains that a negative phase after the injection of a minute dose of vaccine is actual evidence of infection, and although I have not done much work on the subject, what I have done corroborates this view.

We have therefore for diagnosis three ways of using the opsonic index.

1. Gross variation of the index from the normal, or marked fluctuation.

2. Persistence of the opsonin after heating (positive evidence only).

3. Marked negative phase after inoculation.

I may now pass on to the therapeutic use of the opsonic method in skin disease. The three micro-organisms which commonly affect the skin are (1) the staphylococcus, (2) the streptococcus, (3) the tubercle bacillus, and besides these there are other less commonly found infections such as are met with in some ecchymatous sores.

The streptococcus appears to cause two main classes of disorder, namely, an epidermic infection and a corium infection. The former may be acute (impetigo), or chronic (Sabouraud's chronic streptococcic dermatitis). The acute needs no opsonic treatment, since it is so easily cured without it, and in the chronic the infection is so mixed that it is difficult to estimate the etiological importance of the various organisms. I am inclined to think, however, that Sabouraud has overestimated the importance of the streptococcus in this disease. The chronic relapsing lymphangitis or deep streptococcal dermatitis would be a very suitable case for inoculation were it not for the difficulty of obtaining the particular organism from the case. And I must here emphasize the fact that in streptococcal infections it is

of the highest importance to use the culture derived from the particular case as a patient may show a high index to one strain of streptococcus and a very low one to his own. For these reasons I shall confine myself to the staphylococcus and the tubercle bacillus. The infections with the staphylococcus may be primary or secondary and in the latter case may have a very variable importance in the production of the disease.

The primary forms are, of course, the boil or carbuncle and sycosis. Sycosis differs from the others in that the organism is shut off from the body generally by the epithelial barrier of the root sheath, which undoubtedly renders it more difficult of approach by the opsonic method. As regards the treatment of boils I may say that in my hands it has been a complete and brilliant success, and every case whose after history has reached me has been permanently cured. The largest number of injections given has been eight, and the dose has ranged from 250 to 1,000 millions of staphylococci. One or two patients have had a boil after the treatment has been begun, but most have had no more after the first injection.

Sycosis has proved more resistant and although I have never failed to cause immediate improvement, the condition has been apt to relapse, more especially in those cases in which the disease has been set up by nasal discharge and in which there is a great susceptibility to ordinary coryza. I have on more than one occasion combined the inoculation with epilation by means of the X-rays, and I think this is of distinct advantage, but I have seen relapse occur in lip cases after the hair has grown again. Sycosis is much commoner in hospital than in private cases and consequently one is seldom able to keep the patient under treatment until a permanent cure is established.

Of the secondary staphylococci infections, acne, pustular dermatitis and septic ulcers are the chief examples.

With the treatment of acne I have been disappointed in some cases. Looking through my notes I find that five cases gave brilliant results, after the failure of many other forms of treatment by eminent specialists. One case improved greatly, then fell away again, owing to general ill health and dyspepsia, after which he threw up the treatment and was for months afterwards treated very vigorously by his family doctor under the guidance of a specialist, and then spent some months in Scotland in the country. His doctor told me, however, that his disease was only very slightly ameliorated, and both he and I thought that he did better under the inoculation than the

ordinary treatment. One case always improved at once after each injection, but fell away again at the end of a week and finally gave up the treatment. This patient had a strong family history of diabetes on both sides of her family, and had suffered a good deal from general ill-health, though there were no signs of diabetes present. Three cases, one of them very severe and apparently the ideal case for inoculation, sent me by Dr. Pringle, showed no improvement, although I used vaccines made from their own organisms. One case in which I could never get the organisms to grow freely enough for use did not improve. This patient was a terrible sufferer from menstrual and inter-menstrual pain.

The septic dermatitis cases have all done moderately well and some brilliantly. It appears to depend on the degree in which the staphylococcus is responsible for the cutaneous irritability as well as the pustulation. I have only treated one ulcer of nine years' standing, by means of inoculation on the distal side. This healed after four inoculations, but broke down again after an attack of influenza. The patient was about the whole time and the ulcer was immediately above the ankle.

Turning to tuberculosis I have treated two cases of Bazin's disease and several of lupus vulgaris. In one case of Bazin's disease the inoculation was the only treatment which did good during four years' observation. The index when first examined was .35, and new nodules were coming out. After inoculation the index was easily kept above 1.0 and all the nodules immediately resolved, although before this neither the patient nor I had ever observed a nodule which did not liquefy and burst. Treatment was continued for about six months and then the patient stopped attending. Three months later she reappeared with new nodules and the index was found to be 1.2. This high index was maintained though nodules kept appearing and eventually inoculations were tried, but were unavailing. She was taken into the hospital and the index examined twice a week and it was found always high. Not until the last nodule had formed and burst did it fall to .9.

Turning to my cases of lupus vulgaris, I may say that in all cases except one the disease appeared to be arrested, though the natural spread is so slow that it is difficult to say how much is due to the treatment. In the one case in which spread took place the patient, a boy aged ten, was in very poor circumstances and had absolutely no appetite. A great deal of careful general treatment did something to improve his condition, but I was unable to keep

his index up with any degree of certainty and eventually he was taken into the hospital and the patch excised. In no case of lupus treated by me have I seen marked improvement unless the case has also been under X-ray or light treatment, yet I have cases which have been carefully opsonized for nearly three years. On the other hand, I have seen a few cases of Wright's in which undoubted improvement, almost to the point of cure, has taken place.

Of course, with his complete staff of workers a difficult case can be opsonized daily, but I venture to think that the results of opsonic treatment alone in lupus are slow and uncertain. Lupus, however, is not well understood, and it may well be that there are additional factors besides the tuberculosis which militate against our success.

CONCLUSIONS.

I may state that I believe that the opsonic method foreshadows an enormous advance in our control over infective disorders, but that at present there exists a great hiatus in our knowledge which renders the results uncertain in some cases. The following conclusions are, however, based on long and steady work at the method and are, I hope, stated with reasonable impartiality.

1. The opsonic treatment of boils is uniformly successful and is the only form of treatment for general furunculosis which is in the slightest degree reliable.

2. In sycosis the treatment is a valuable aid, but must be continued for long periods in proportion to the duration of the disease, and it is best combined with X-ray depilation.

3. In acne the treatment is uncertain, in some cases being most brilliant, in others without the slightest avail.

4. In septic dermatitis and ulcers the treatment is of very distinct value as an auxiliary.

5. In Bazin's disease the treatment is somewhat uncertain, but it is sometimes of assistance. In tubercular ulceration it is of great value.

7. In lupus the treatment alone is too slow and uncertain to be recommended. It is, according to Bulloch, a valuable auxiliary in preventing relapse after Finsen's treatment, and I have found it of value combined with the X-rays.

BACTERIAL INOCULATION IN THE TREATMENT OF SUPPURATIVE AND TUBERCULOUS DISEASES OF THE SKIN AFTER THE METHOD OF WRIGHT.

Dr. V. M. VON EBERTS, Montreal Canada.

Read before the Sixth International Dermatological Congress, New York, September 9-14, 1907.

TOWARDS the close of 1900, Professor Wright of St. Mary's Hospital, London, stimulated by the change, observed in the blood of those inoculated with anti-typhoid vaccine, conceived the idea of exploiting Bacterial Inoculation in the treatment of localized suppurative (staphylococcic) affections of the skin, and in the *Lancet* of March 29, 1902, appeared an account of the clinical results achieved in the treatment of six cases, representing such varied forms of staphylococcic invasion as furunculosis, acne and sycosis; while in May, 1904, from the laboratory of the same investigator, appeared the results obtained in the treatment of a series of eighteen cases of staphylococcic infection by the same method. Since this earlier work, Wright and Douglas, Bullock, Weinstein, Hektoen, Potter, Webb and Varney are but a few among many who have exploited this form of therapy with satisfactory results, especially in the more acute forms of staphylococcic skin affections.

This new therapy came to the fore as the end product of many years of experimental work by different investigators. The corner stone of the Opsonic Theory may be said to have been laid by Denys and Leclef, who, in 1895, proved the existence in the serum of vaccinated animals of a substance capable of altering bacteria in such a way as to permit of their inception by the phagocytes of the blood, and concluded that vaccinated animals were able to withstand infection, first, by the direct action of the serum, and, secondly, by the leukocytes. The work of these observers was substantiated by Mennes in 1897, and Leishmann in 1902; the latter devising a technique for the quantitative estimation of the phagocytic power of different sera. Then followed the clinical experiments of Wright and Douglas upon "The Role of Blood Fluids in Connection with Phagocytosis," in which they conclusively demonstrated the existence in the blood serum of a definite element, which, when brought into contact with bacteria, rendered such more acceptable to the phago-

cytic leukocytes. To this element was given the name Opsonin. It was further concluded that the fluctuations in the phagocytic index following inoculation were due to the presence in the serum of a varying amount of opsonin, and that the opsonic content and phagocytic index were practically interchangeable expressions of varying degrees of immunity toward a given infection. The connection between laboratory and clinic was at once established with the observation that a depressed immunity (negative phase) coincided with exacerbations in the local symptoms, and that heightened immunity was the forerunner and sustainer of improved clinical phenomena; and finally, that inoculation with specific vaccines was generally followed by an ebb, flow and reflow in the immunity curve.

The technique of opsonic determinations has been so widely commented upon, that I purpose to touch only upon the more salient points. For such determinations sera from patients and controls should be collected at the same time each day, and slides prepared within six hours, as after this period has elapsed a gradual decrease in the opsonic element takes place, amounting in 24 hours to approximately 50 per cent.

Washed corpuscles should always be prepared from the same individual and immediately before use, as in those which have stood for more than four hours, a greatly increasing number of the polynuclear neutrophils fail to functionate. This loss of phagocytic function may be postponed within limits by allowing a small portion of the saline to remain after washing, until immediately before use. It is most important at all times in the preparation of washed cells to avoid centrifugalizing beyond the actual time necessary to produce a well-defined "buffy coat," as in prolonged centrifugalization the "blood cream" becomes corrugated on its surface layer, with compaction and distortion of the leukocytes, many of which suffer loss of function.

Bacterial suspensions should be freshly prepared from 6 to 8 hour cultures of the homologous organism, employed 0.85 per cent. saline solution, as yielding the minimum of spontaneous phagocytosis. In the preparation of tubercle suspensions, 1.5 per cent. saline solution should be used. A tubular thermostat is indispensable.

In the preparation of bacterial vaccines apart from the fundamental requirement that such shall be closely affiliated to the organism producing the disease which it is desired to combat, there are many details of minor importance which enhance very largely the probabilities of success.

In the first place it is important that a vaccine should be prepared from the original culture or first transplant. It is sometimes possible to employ the former where care is taken in the transference of material from the lesion to the tube to insure an even distribution of the same over the entire surface of the slant. Early cultures are especially of importance as retaining as far as possible the personal element in the infection.

Experience shows that 18 hour cultures are the most suitable for vaccines, as at this time, not only is the growth of the organism mature, but dessication in the tube has not proceeded to a point where difficulty is encountered in breaking up by simple agitation the smaller bunches of cocci; an important point in connection with standardization.

Devitalization should be effected at the lowest possible temperature, that commonly employed being 60° centigrade for 1 hour, a period invariably sufficient to prevent growth in control tubes with the exception of an occasional aureus infection. It is possible that fractional devitalization at a lower temperature might yield more active vaccines. The temperature at which devitalization is effected is, next to the source of the organism employed, the most important factor in the determination of the composition of the vaccine.

As I have stated elsewhere, it is my opinion that "stock" vaccines are permissible in the treatment of certain aureus infections, such as furunculosis and impetigo, providing always that the "stock" employed has been prepared from the organism isolated in a similar clinical condition. Of course, where a case fails to yield at once, a personal or autogenous vaccine should be employed for subsequent injections. In the conduct of cases of acne indurata and coccogenous sycosis personal vaccines should in every case be prepared. Failure or only partial success in the handling of such cases has been largely due to the inattention paid in the past to the question of autogenous vaccines.

In the treatment of tuberculous infections of the skin, the question of autogenous vaccines is at present impracticable, but very encouraging results may be obtained with Koch's new tuberculin. (T. R.)

Dosages.—Increasing experience shows that the doses originally employed in staphylococcic infections were too large, so that at the present time instead of 500 millions or more being injected at the initial dose, it has been found advisable to start with 100 or 200 millions, or in a tubercular case 1/2000 to 1/1600 m. gm. of T. R.,

deciding as to the effect and subsequent dosage by the immunity reaction induced in the individual, as interpreted by the opsonic findings. If the negative phase following inoculation is severe or prolonged, the dose should be diminished. Where, on the other hand, the immunizing response is inadequate—that is where the negative phase is suppressed and the positive phase but slight—the dosage should be increased.

Subsequent inoculations should not be regulated by the antiquated hypothetical “fixed period” of 10 days, but should be undertaken with each successive decline or reflow in the immunity on the 5th, 7th, or 10th day as the opsonic findings indicate. In the use of tuberculin it is as well to make each inoculation a separate event, as reinoculation seldom, if ever, in this infection, leads to accumulation in the direction of a positive phase.

More attention should be paid in future to the site of inoculation. Everyone who is familiar with the local reaction sometimes following subcutaneous injections of tuberculin, must have been impressed with the fact that such cases showed more pronounced improvement than is generally met with. Such experience coincides with the observations of Wright in connection with the subcutaneous inoculation of typhoid vaccine, where it was found that local reactions were associated with an immunity response very much greater than in those inoculated intravenously, and possibly the subjects of marked constitutional symptoms. The elaboration of protective elements locally at the seat of inoculation, is further substantiated by the observation that in horses a greater yield of antitoxins is secured by subcutaneous rather than by intravascular injections. While personally, I have not had the opportunity of deciding upon a method apparently most suitable to the treatment of certain selected cases of lupus or tuberculous ulceration of the skin, I am assured by Professor Wright that he has achieved brilliant results by placing inoculations on the side of the lesion distal to the lymph glands draining the part, disposing the same circle-wise, care being taken to avoid the too frequent use of the same site.

In the conduct of cases of *acne indurata*, especially those of long standing, where the presence of scar tissue has materially impaired the cutaneous blood supply, I have employed daily applications of hot water stupes for a period of 15 to 20 minutes, with a view to dilating the vessels and determining immune serum to the part; that is, a serum rich in opsonins. As before stated, the personal vaccine is an element of importance in the treatment of at least 50 per cent. of these cases. Dosage and the spacing of inoculations should be

regulated, at the start at any rate, by careful opsonic determinations. From my own experience and from conversation with other workers in this field, I am of the opinion that a judicious selection of cases is not always made, and that the statistics so far published, embrace under the heading of *acne indurata*, numerous affections such as *acne rosacea*, comedones associated with suppuration and the *acnei-form* eruption so common upon the chin and forehead during menstruation. These aberrant forms of *acne* are apparently not benefited to the same extent. In the treatment of true *acne indurata*, I have yet to meet a case in which marked improvement after the first inoculation was absent. In long-standing cases, the eruption becomes much more discrete; the papules seldom proceeding to suppuration and scarring. In my experience, cases which do not yield promptly are those in which the initial index is not found to be greatly, if at all, depressed. In such cases inoculation can only be considered a valuable additional weapon. The above statement develops the opinion that the primary index has a definite bearing upon the prognosis; where it is found to be low, inoculation is almost invariably successful.

Autogenous vaccines should always be prepared in cases of *sycosis*. Of three cases in my series, two have reported well, while a third has been the subject of relapses from time to time. When a case comes to this point, I think that inoculation should be combined with whatever other measures have been found expedient.

Cases of *impetigo* yield so readily to local applications that little has been done in the way of immunization. I have had the opportunity of observing the effect of inoculation upon two cases only, where the infection was limited to the beard. Both cases were greatly improved two days after inoculation, and well at the end of one week. One inoculation only was given in each case. A similar result could be obtained by local treatment, so that the advantage is doubtful apart from the general protection conveyed.

We now come to the last of the staphylococcic group—*furunculosis*—ranging from small acute pustules, through the thimble-sized boil to the palm-wide carbuncle. In the majority of cases of this group, "stock" vaccines are admissible, and indeed, in a large number of cases expedient for primary inoculations; in subsequent inoculations, however, personal vaccines should be employed.

In three acute localized staphylococcic infections, bacterial inoculation yields the most brilliant results. Practically all cases react favorably.

Opportunity to observe the effect of tuberculin in the treatment of lupus, has in my experience, been limited to two cases—one extensive and long-standing, involving practically the whole of the face, showed improvement at first, but as advancement was slow, other methods of treatment were resorted to: the second, an acute lesion on the upper lip, healed completely after three months' treatment. Inoculation in the latter case was only resorted to after various local applications had been tried and the patient had spent two months in the country.

The objective and subjective symptoms following inoculation, are to a trained observer, almost as valuable guides as the opsonic findings. Experience teaches one that exacerbations in the local symptoms, are the harbinger or accompaniment of a depressed immunity (negative phase.) On the other hand, comparative anæmia accompanies the positive phase. This latter phenomenon, no doubt, accounts for the decrease in the subjective symptom of pain, invariably admitted in severe furuncular infections. In old lupus cases, the bleaching of the scar is a very striking feature. Constitutional symptoms are rarely met with and should never develop if the dosage is properly adjusted.

BACTERIAL INJECTIONS IN THE TREATMENT OF DISEASES OF THE SKIN.

By Dr. JAY FRANK SCHAMBERG,
and Drs. NATHANIEL GILDERSLEEVE and HARLAN SHOEMAKER, of
Philadelphia.

Read before the Sixth International Dermatological Congress, New York,
September 9-14, 1907.

THE past decade has been remarkable for a number of discoveries which have been directly applicable to the treatment of cutaneous diseases. Among these may be mentioned the X-rays, phototherapy, radium and opsonotherapy. With the advent of new agencies in the treatment of disease there are invariably enthusiasts whose claims are extravagant. The curative virtues of the treatment are exaggerated and not infrequently the newly announced therapy is viewed in the light of a panacea for a variety of ills. On the other hand, we are sure to find a body of men who are conservative to the point of skepticism or incredulity. They refuse to believe until forced to by the cold logic of facts.

The history of medicine has exhibited frequent proof of the desirability of conservatism among its votaries. New treatments have from time to time been loudly heralded as revolutionizing discoveries only to be tried and ultimately consigned to oblivion. On the other hand, great men have set the sign of their disapproval upon new measures which have come to be recognized as true and important advances.

Time is the important factor which ultimately assigns to each new treatment its proper place and value.

It is premature to anticipate the critical discernment of mature experience by attempting at the present time to determine the value or to define the limitations of the new opsonotherapy. It is the duty of those who have had some experience with the new treatment to place their observations on record, so that a proper estimate of its value may be arrived at as early as possible.

Like most therapeutic advances, opsonotherapy has been developed from the cumulative researches of various workers. Pasteur might be said to have laid the foundation stones of this treatment. He was firmly of the opinion that infectious diseases would ultimately be controlled by protective inoculations. The present treatment was made possible by the epoch-making researches of Metch-

nikoff on phagocytosis. The defensive role played by leucocytes against bacterial invasion was championed by him against strong opposition. To Leishman (1902) are we indebted for developing a method of measuring the phagocytic activity of leucocytes. Wright and Douglas, in 1903, after painstaking researches, proved that the leucocytes ingested and destroyed bacteria only under the influence of activating substances in the blood fluids. They furthermore demonstrated that the action of these substances could be influenced by measures within our control.

The bacteria are so modified by the blood fluids as to render them ready prey to the action of the phagocytic leucocytes. These substances were designated "opsonins" from the Greek *opsono*, I prepare food for. The opsonins are presumed to act by entering into chemical combination with bacteria and so changing them that they are readily ingested and destroyed by the phagocytes.

Through the beautiful technique elaborated by Leishman, Wright and Douglas, it is now possible to measure with a fair degree of accuracy the patient's defensive power against organisms which are attacking him. The resisting power of the individual formerly expressed only in vague and indefinite terms may now be almost mathematically calculated.

The mere presence of pathogenic germs does not produce disease; so long as the defensive machinery of the body is able to overcome the bacterial attack, the corporeal fortress remains intact. When the balance of power is upset by a weakening of the defensive agencies, the germs invade the system, elaborate poisons and produce disease.

The claim to distinction of the English researches lays not only in the acquired ability to estimate the defensive strength of the body fluids, but to reinforce them by comparatively simple means.

The bactericidal power of the blood against certain specific organism may be raised by the injection of a proper quantity of a sterilized culture of those bacteria. There is at first a temporary reduction of the resisting power, corresponding to what has been called the "negative phase." The process Wright says, "takes away temporarily from the patient's power of resistance with a view of his receiving back that power with usury."

There are a number of cutaneous diseases due to the noxious influence of micro-organisms which ordinarily form a part of the normal bacterial flora of the skin. When such organisms as the

staphylococcus produce a disease of the skin they do so because the defensive blood elements which commonly safeguard the body are weakened.

It has long been recognized that certain patients exhibit a vulnerability to staphylococcal invasion. These patients will exhibit upon proper examination a weakness of their staphylo-opsonins. In many instances it is possible to increase and strengthen these substances so that the normal balance of resistance is reestablished. Heretofore, we were obliged to be content with an effort to kill the bacteria upon the skin, an almost hopeless task, and to raise the patient's resisting power by tonics, drugs and improved hygiene.

Below is appended brief case histories of the patients treated by us. The frequency and dosage of the inoculations were in some cases guided by a study of the opsonic index, and in others by attention to the clinical appearances alone. We are of the opinion that our results were rather better when we were guided by the former.

In the majority of the inoculations autogenous cultures, *i. e.*, cultures from the patient's own lesions were employed. We feel that these give better results than the use of stock bacterial emulsions, although we have seen the latter accomplish decided results.

A description of the technique employed is omitted in order to economize space. In general we followed the method so carefully detailed by Wright.

SYCOSIS VULGARIS.

CASE 1. S. R., age twenty-nine, sycosis of five months' duration. Entire bearded region of face and neck covered with scattered follicular pustules. A few pustules on right wrist. Had received varied local treatment consisting of sulphur, mercurial and ichthyol lotions and ointments, and some X-ray treatment, without any benefit.

Opsonic index to staphylococcus aureus, 0.6.

On April 4, 1907, received one hundred and sixty-five million staphylococcus aureus.

On April 9, 1907, index had risen to 0.8. Injection of two hundred and thirty million aureus.

April 16, 1907, index further raised to 1.0.

Four days after last injection an indurated mass the size of a goose egg and very painful appeared at site of injection on the

back. This looked as if it might suppurate, but gradually disappeared without doing so.

An improvement in the eruption began a few days after the first injection, and progressed rapidly, so that by April 22, 1907, or eighteen days after the first injection, the lesions had entirely disappeared.

It is now over five months since the patient was treated and the face has remained entirely well, not a single new pustule developing. But two injections were given. No other treatment was employed.

SYCOSIS VULGARIS

CASE 2. C. F., age thirty-nine. For two years patient has had boils about neck and jaw, also pustules about hair follicles. At time of inauguration of treatment a number of pustules present, and on left side of jaw a large indurated linear patch containing pus. On May 17, 1907, received an injection of four hundred million staphylococcus aureus cultured from the patient's lesions. An improvement in the condition of the face began within a week. The improvement continued and in about a month the infiltrated suppurative patch had almost disappeared. A few new pustules developed on neck.

Patient seen August 31, 1907, was vastly improved and practically free of eruption; only a few small dried-up pustules visible.

This patient had pronounced reaction in the back where the injection was given, which terminated in an abscess. This was the only patient in whom such a condition occurred.

The patient is now almost well.

SYCOSIS VULGARIS.

CASE 3. A circumscribed sycosis limited to the upper lip just below the nostrils. Duration eleven years. New pustular lesions develop every few days.

Culture taken on June 3, 1907, and five days later an injection of staphylococcus aureus was given. Pustules began to dry rapidly. Itching which was present has decidedly lessened. The first new pustule developed five weeks ago. Patient was seen on March 31, 1907, and said he had had no pustules in six weeks. The patch is slightly red and scaly.

Only one injection given. No local reaction at site of injection.

SYCOSIS VULGARIS.

CASE 4. H. S., age twenty-three, deaf mute. Very severe sycosis of entire hairy region of mustache and beard on both sides. Nodular infiltrations; eruption markedly red and inflammatory.

On May 28, 1907, injection of four hundred million staphylococcus albus cultured from the lesions. The following day a new pustular outbreak occurred, and for some time afterwards the eruption was worse than before treatment.

On June 17, 1907, forty million mixed aureus and albus injected. No improvement.

July 5, 1907, about eight million aureus was injected.

July 19, 1907, forty million aureus injected.

August 3, 1907, fifty million aureus.

August 10, 1907, one hundred million aureus.

The patient was last seen on September 3, 1907, and now shows a pronounced improvement. The face is smoother, paler, less infiltrated, and shows but few recent lesions. Treatment will be continued. It would seem that this patient received too large an initial dose, which resulted in a pronounced and prolonged negative phase.

SYCOSIS VULGARIS.

CASE 5. S. F., age thirty-two. Circumscribed sycosis of upper lip just below nostrils. Duration five years. New pustules develop every day.

On July 19, 1907, fifty million injection of staphylococcus aureus cultured from lesions was given.

July 23, 1907, no improvement.

August 3, 1907, ten million staphylococcus albus (autogenous) injected.

August 10, 1907, one hundred million albus given.

August 13, 1907. Fissure has healed and patch entirely dry. Patient is now vastly improved and appears to be almost well.

Three injections given.

SYCOSIS VULGARIS.

CASE 6. J. S., age twenty-three. Discrete pustules and tubercles in bearded region of right side of neck. Has had outbreaks of pustules on body.

April 27, 1907, two hundred and fifty million staphylococcus aureus (cultured from lesions) injected.

April 29, 1907, pustules show tendency to dry up.

May 3, 1907, lesions had all dried up and the patient appeared to be getting well. Injection of four hundred million aureus.

May 20, 1907, another injection given; four days later a marked relapse occurred.

This patient has received seven injections in the course of twelve weeks, but still continues to have relapses and cannot be said to be much improved.

SYCOSIS VULGARIS.

CASE 7. J. M., age twenty-seven. Rebellious sycosis of lip and chin of four years' duration. A year or more ago the lip was X-rayed and a greater part thereof permanently depilated. Where the hair is intact pustules still appear.

June 11, 1907, injection of fifty million staphylococcus aureus (not autogenous).

June 14, 1907. Lesions have completely dried up.

June 21, 1907. A few new pustules appearing.

June 27, 1907. Patient says pustules appear more sparsely than before injection.

June 28, 1907. About eighty million aureus injected.

July 15, 1907. Severe relapse.

July 19, 1907. Twenty million albus (autogenous) injected.

July 23, 1907. No new lesions since last injection. Subsequently a relapse.

August 6, 1907. Twenty million albus (autogenous) injected.

This patient has had four bacterial injections. Temporary improvement has occurred, but the result thus far cannot be said to be satisfactory.

SYCOSIS VULGARIS.

CASE 8. M. F., age, forty, son of Case 3. Scattered patches of sycosis on upper lip. Pustules small and patches inclined to be dry and scaly.

July 5, 1907. Fifty million staphylococcus albus (not autogenous) injected. No improvement.

July 19, 1907. One hundred million of a pool of albus and aureus injected. No improvement.

SYCOSIS VULGARIS.

CASE 9. S. B., age twenty-two. Duration of disease two years. In the beard of right side of face a reddened patch 5 inches by 2

inches, studded with numerous papules and pustules. Has been under treatment constantly without avail. New outbreaks of pustules every few days.

June 20, 1907. Four million staphylococcus albus (auto-genous) injected.

June 29, 1907. Face looks decidedly better.

July 5, 1907. Forty million albus given.

June 19, 1907. One hundred million of a pool of albus and aureus injected.

August 20, 1907. One hundred million (autogenous) aureus given.

Patient shows improvement, but the result thus far is not as gratifying as in some of the other cases.

CHRONIC FURUNCULOSIS

CASE 10. M. T., age forty; disease has lasted many years; entire trunk is covered with scars. At the present time several large abscesses on the buttocks and smaller ones on abdomen. Staphylococcus albus found in culture. Opsonic index 0.5.

June 19, 1907. Injection of twenty million albus. Within a few days patient showed improvement.

Patient also has a suppurating paronychia on thumb. Paronychia on thumb almost entirely well.

June 26, 1907. Several small new abscesses around the waist line.

June 28, 1907. Forty million albus injected.

July 5, 1907. Forty million albus given.

July 19, 1907. One hundred million pool of albus and aureus injected.

August 3, 1907. Ten million aureus injected.

August 5, 1907. Three new furuncles present.

August 10, 1907. One hundred million aureus injected.

August 13, 1907. Deeper lesions healing. Few superficial pustules still exist.

August 20, 1907. No new lesions. Patient decidedly improved.

Patient has received six injections and is now almost, if not entirely well. No treatment was used except the evacuation of the pus in the abscesses.

ACUTE FURUNCULOSIS

CASE 11. Mrs. L. P., age twenty-five, has been suffering from boils for a number of weeks.

On May 14, 1907, an injection of three hundred million aureus was given. Patient did not return to clinic; on inquiry at her residence, it was stated that she had recovered from the condition from which she was suffering.

CHRONIC FURUNCULOSIS

CASE 12. Dr. T., age thirty-four. Duration of disease two years. Has not been free from boils and carbuncles for more than three to four weeks throughout the entire period mentioned. Recently the furuncles have been numerous.

On July 17, 1907, thirty million staphylococcus aureus was injected. No new lesions developed until July 26, 1907, when three small furuncles appeared.

On August 2, 1907, twenty-five million mixed albus and aureus was injected.

On August 28, 1907, fifty million aureus was injected.

August 31, 1907. Three hundred million aureus and albus injected.

The patient who is a physician, states that he is certainly improved since the treatment was instituted. He has had three injections and is still under treatment.

SEVERE ACNE INDURATA ET PUSTULOSA

CASE 13. N. J., age seventeen; duration of disease one year, Extremely severe indurated and pustular acne covering the entire face.

Opsonic index to the staphylococcus aureus 0.5.

April 27, 1907. Three hundred million aureus injected. Within a few days a perceptible improvement in the face was noted.

May 1, 1907. Index 0.813.

May 3, 1907. Four hundred million aureus injected. Patient very much improved.

Five additional injections have been since given. The patient has, therefore, received in all, seven injections. The face is greatly improved, the deeper lesions having in large part disappeared. Superficial pustules still appear at times. No local or general treatment used. Patient still under treatment.

ACNE INDURATA ET PUSTULOSA

CASE 14. B. A., female, age twenty-two; duration of disease two years. Numerous indurated and pustular lesions over face.

This patient has received, up to the present time, six injections of the staphylococcus. There has not been much improvement.

ACNE

CASE 15. M. S., female, age twenty; duration of disease seven years. Small papulo-pustular lesions over face. Marked tendency to flushing, which is increased by excitement of any kind.

This patient has received four bacterial injections. No perceptible improvement in the acne lesions has taken place, but a most remarkable disappearance of the redness is noted. The patient's face was always flushed at her appearance at the clinic, but is now comparatively pale. She states that the flushing has practically ceased.

ACNE PAPULOSA

CASE 16. J. M., age, twenty-three; duration of disease eleven years. Small papulo-pustules scattered over face and neck.

Three injections have been given; only a slight improvement is noted.

ACNE

CASE 17. T. S., female, age sixteen; duration of disease five months. Profuse eruption of very small papules and pustules over cheeks, chin and nose.

Three injections have been given without any marked improvement.

ACNE AND SEBACEOUS ABSCESES

CASE 18. Mrs. J. F., age thirty; duration of disease twelve years. Numerous sebaceous abscesses of the face varying in size from a pea to a hickory nut. Also small pustular lesions.

Patient has had all sorts of treatment, including a course of X-ray exposures. Staphylococcus aureus found in culture.

This patient received four injections of the albus and aureus within a period of two months. She is vastly improved, and is now free from all deep lesions.

ACNE AND SEBACEOUS ABSCESES

CASE 19. J. H., male, age nineteen; duration of disease eight months. Large infiltrated scars beneath which suppuration still takes place.

One injection of four hundred million albus and aureus has produced a pronounced improvement in the patient's condition.

ECZEMA VESICULOSUM COMPLICATED BY A FEW FURUNCLES AND PUSTULES

CASE 20. B. F., female, age fifty-two; duration several months. The patient has had an erythematous eczema upon the trunk, with a pronounced vesicular eruption covering the patient's face and arms. Intense itching. Patient later developed three or four furuncular lesions on the buttock and hands; the thumb also became infected and suppurated.

On May 22, 1907, injection of four hundred million staphylococci was given. This was followed by an immediate disappearance of the pustules, furuncles, and suppuration of finger. One week later a second injection of staphylococcus aureus was given. A paste containing phenol and calomel had been previously used upon the area affected with eczema and was continued. The patient experienced a marked improvement in her general health.

The eczema responded rapidly to treatment, and in four weeks had disappeared. A slight ephemeral relapse, characterized by a mild papular rash, appeared on September 3, 1907.

In this patient the bacterial injections certainly effected a cessation of the pyogenic complications. The eczema appeared to be decidedly more amenable to treatment after these injections than before.

PSORIASIS

CASE 21. M. M., male, age thirty-one; duration of disease one year. A considerable number of coin-sized, scaly patches scattered over trunk. Scales were cultured from the surface of the lesions and the staphylococcus albus obtained.

On June 9, 1907, five hundred million albus was injected. Three days later there was an unquestioned tendency of the patches to clear in the center. This central involution continued until it affected all of the patches present. No other treatment was employed.

On June 18, 1907, ten million albus was injected.

July 18, 1907. One hundred million aureus injected. No improvement appeared to continue beyond the central clearing of the patches.

LUPUS ERYTHEMATOSUS

CASE 22. M. W., female, colored, age fifty-one; duration of disease eleven years. Extensive involvement of the right side of the face with several small outlying patches. In some areas, great infiltration. Normal pigment lost over greater portion of the

affected area. Skin looks quite whitish. The condition appears to have been aggravated by a course of X-ray treatment previously given.

This patient has received five injections of tuberculin R. (P. D. & Co.) From 1/1000 to 1/1800 milligrams was injected each time. Some of the injections were followed by slight febrile reaction. The whitened area has taken on a distinctly more reddish appearance, and there is an increased tendency of the islets of normal pigment to increase in size. The patient claims to have less itching and soreness in the affected area.

GENERAL AND LOCAL REACTION

Within a few hours after bacterial inoculation, it is common for the patient to experience an elevation of temperature of several degrees, accompanied by malaise. The disturbance seldom lasts longer than 12 to 24 hours. The larger the dose given, the more pronounced is the constitutional disturbance.

Many patients complain of some soreness at the site of puncture for a few days following the injection. Occasionally a circumscribed infiltration develops. In two of our twenty-one cases a decided local reaction occurred. In one there was a large reddened inflammatory swelling which looked as if it would suppurate, but which ultimately underwent resorption. In the other case, a large abscess developed from which four ounces of pus was evacuated. In both of the cases, the sycosis from which the patients were suffering, responded rapidly to the inoculation. In the first case, a complete cure resulted from two injections, and in the second, a steady improvement amounting almost to a cure from the one injection. These observations are of interest in connection with the statement of Wright, that the greater the local reaction, the greater the amount of bacteriotropic substances formed. He remarks that in typhoid inoculations, those cases do best in which there is considerable local reaction.

The opsonic index taken within the first 24 or 48 hours following the inoculation, will usually be found to be lower than before. With this decline, there is often an aggravation of the cutaneous lesions. This "negative phase" may disappear within 40 to 72 hours, or may last several days longer. It is followed by a rise in the index and an improvement in the clinical symptoms; this is the positive phase.

The *dose* of the bacterial emulsion to be employed varies according to the organism used, the degree of depression of the index, the type of infection, and the age and condition of the patient. It must

not be forgotten that there are individual idiosyncrasies in relation to this remedy, as well as to other therapeutic agents. In many cases the dose employed is too large. We attribute some of our failures or tardy results to an excessive initial dose. It is best to start with a small dose and increase. No absolute rule can be laid down at the present time regarding the dosage.

In general, it may be said that smaller doses should be used: when the index is very low, than when moderately depressed; in acute than in chronic diseases; in children and debilitated individuals, than in adults and in the more robust.

In regard to dosage, Wright says: "The proper principle of dosage in any series of inoculation, is never to advance to a large dose until it has been ascertained that the dose which is being employed is too small to evoke an adequate immunizing response. A dose of vaccine may be adjudged too small as soon as it has been ascertained that its inoculation is not followed by a negative phase and that the positive phase is not well marked, and is only of very short duration.

SUMMARY OF RESULTS

Twenty-one cases in all were treated by bacterial injections. Of these, 9 were cases of sycosis vulgaris, 3 furunculosis, 4 acne, 2 acne with sebaceous abscesses, 1 eczema, 1 psoriasis, and 1 lupus erythematosus.

It would be perhaps misleading to classify the results in a statistical manner. Some of the patients have been under treatment only a short time and are continuing to make progressive improvement. It is also possible that cases now regarded as cured or greatly improved, may subsequently develop relapses. The following table, however, will give some idea of the results achieved.

SYCOSIS VULGARIS

Cases	Results
1	Entirely cured.
2	Not improved.

ACNE

1	Greatly improved.
2	Slightly improved.
3	Almost well.

FURUNCULOSIS

1	Cured.
1	Almost cured.

- 1 Improved.
- 2 Improved.
- 1 Not improved.
- 1 Flushing relieved.

ACNE WITH SEBACEOUS ABSCESSSES

- 2 Decidedly improved.

ECZEMA WITH PYOGENIC LESIONS

- 1 Pyogenic lesions cured and eczema rendered amenable to treatment.

PSORIASIS

- 1 Temporarily improved.

LUPUS ERYTHEMATOSUS

- 1 Result not yet interpreted.

Considering the fact that the majority of these cases were rebellious, of long standing, and had resisted approved treatments of all kinds, the results must certainly be regarded as encouraging. It is impossible at the present time to explain why one case of *sycosis* should be cured by one or two inoculations, and another case resist the influence of seven injections. Future experience with this agency may shed light upon the variations in results. No other treatment, save possibly the use of the X-rays, has given in our hands and in the hands of others, as good results in obstinate *sycosis*, as opsonotherapy. These cases can be cured by the X-rays, but it is necessary to bring about a permanent atrophy of the hair follicles leading to more or less disfigurement.

In *acne*, some workers allege to have obtained favorable results in a large proportion of cases. Our results thus far are very indefinite. It is rather surprising that the use of staphylococcus injections should be curative in a disease which is obviously not primarily caused by this organism. Of course, it is quite possible that the secondary pustulation may be prevented by the inoculation of a culture of the staphylococcus. It would seem more rational to employ in this disease the staphylococcus in conjunction with the microbacillus, which is regarded by some as an important etiologic element in the causation of this affection.

In *furunculosis* the results appear to have been more constantly favorable than in any other disease. Heretofore, the treatment of this obstinate and distressing condition has been limited to the use of empiric remedies, nearly all of which have failed, when

given adequate and extensive trial. The raising of the patient's defensive power against the invasion of the staphylococcus would appear to be the only scientific treatment of this disease.

It is a pure experiment to use opsonotherapy in *eczema*. Nevertheless, secondary pustulation, which is in all probability a condition apart from eczema proper, is so common that it would not seem unreasonable to expect an improvement of the eczema from the use of an agent capable of restricting suppuration. It is also possible that toxins absorbed from pustular foci in eczema may so influence the individual as to lower his resisting power, and thus make the eczema more rebellious to treatment.

Psoriasis could hardly be expected to improve under opsonotherapy without the establishing of the disease as a microbic disorder, and the discovery of the parasitic cause. In the case reported by us, the facts alone are presented without any deductions.

If *lupus erythematosus* is, as many assert, due to the toxins of the tubercle bacillus, it would hardly be proper to inject such a toxin with a view to bringing about a favorable result. The case reported is still under treatment, and does not admit at the present time of any definite statements as to the result produced. It must, of course, be recognized that the treatment here is purely experimental.

In practically all of the foregoing cases, sole reliance was placed upon the serum treatment, no local applications or general treatment having been given, except later in the rebellious and unsuccessful cases. Such a course is necessary in order to prevent an obscuration of the value of the treatment. When the status of opsonotherapy is once established, it will neither be necessary nor desirable to rely exclusively upon bacterial injections, but to employ them, if found valuable, in conjunction with other approved methods of treatment. Wright has called attention to the fact that the results are better when some agent which produces an increased vascularity of the affected area is used in conjunction with opsonotherapy.

By this means an opsonin-laden lymph or blood supply is conveyed to the affected area.

He counsels such measures as radiotherapy, Bier's method of passive hyperemia, and phototherapy. Many physicians who have read the published reports of cases treated with bacterial inoculations, hesitate to accord recognition to opsonotherapy, because many of the cases subjected to this treatment are merely improved

and not cured. A number of valuable drugs and therapeutic agents now in general use would likewise fail of recognition if subjected to this standard of criticism.

In order that opsonotherapy should receive an established place in the treatment of disease, it is not necessary to demonstrate that it will alone and without assistance cure the disease for which it is used, but merely that it will accomplish the result aimed at better than previously known therapeutic agents.

FURTHER POSSIBLE USES OF OPSONOTHERAPY IN DERMATOLOGY.

While this method of treatment has heretofore been limited to lupus vulgaris and circumscribed pyogenic affections of the skin, it is not impossible that it may be found of value in the treatment of other cutaneous diseases that result from parasitic infection. Thus blastomycosis, ringworm, favus and actinomycosis are affections in which this method of treatment should be given a trial.

Wright has published cures of long standing cases of furunculosis and sycosis with his opsonic treatment. He likewise records some of his failures.

Varney, of Detroit (*Jour. A. M. A.*, 1907), used opsonotherapy in 25 dermatological cases. Most of these were cases of acne, and the vast majority are said to have been cured by this treatment alone. Varney says he has never obtained nor seen such rapid improvement with other methods of treatment as that occurring within the first 48 hours after the first inoculation in selected cases of acne.

He reports five cases of furunculosis all of which were cured by bacterial injection. Also two cases of sycosis vulgaris, one of which was cured.

Turton and Parker (London *Lancet*, Oct. 27, 1906, pages 1130-1136), record 34 cases, in which opsonotherapy was used with excellent results in 30. Most of the cases were tuberculosis. Among the cutaneous affections were 3 cases of acne, 1 of sycosis and 1 staphylococcic granuloma.

French (*Brit. Med. Jour.*, February 2, 1907, page 256), reports an infant suffering from 75 abscesses. The case seemed hopeless, but was rapidly cured by staphylococcic injections. He also reports the improvement of two severe cases of acne in medical students.

Thorne (*Brit. Med. Jour.*, 1907, page 436), reports a rebellious case of furunculosis of three years' duration, cured by six staphylococcic injections.

Ohlmacher (*Jour. Amer. Med. Assn.*, February 16, 1907, page 571), publishes records of two severe cases of acne, greatly improved by opsonotherapy, and notes the disappearance of the associated oily seborrhea. He also reports a chronic furunculosis in a child two years old, cured by this treatment.

McClintock (*Jour. Amer. Med. Assn.*, 1907, page 640), in discussing Ohlmacher's paper, said he had treated by opsonotherapy, 18 cases of cutaneous pus affection, 10 of which had been cured.

CYTORYCTES VARIOLÆ; THE ORGANISM OF SMALL-POX.

GARY N. CALKINS

Read before the Sixth International Dermatological Congress, New York, September 9-11, 1907.

ONE of the chief arguments against the parasitic nature of the cell inclusions in smallpox tissue is the fact that no structure of cellular character can be made out. Misled by the usual expectation of finding a well-defined nucleus and cytoplasm, most investigators have been unable to interpret these inclusions as organisms and have taken the ground that the bodies are degeneration phenomena of a unique type.

It is possible, of course, that such observers are right, but there is also a possibility that they have not exhausted all of the phases which cells and nuclei, especially in the group of protozoa, may show, and it is my privilege to point out in the few minutes at my disposal, some of the features in protozoa upon which is based the contention that the famous Guarnieri bodies conform in structure and development to a well-defined protozoön type.

In the first place, there are organisms among the protozoa in which no formed nucleus is present. Even in the highest types of protozoa, the infusoria, there are species in which the nucleus is never more than a collection of granules (*Dileptus* sp. for example). In the lowest organisms standing at the opposite end of the line of single-celled creatures, the bacteria, there is likewise no formed nucleus, the place of this important organ of the cell being taken by the distributed granules of chromatin, which in protozoa, we call the chromidium.

In the second place the protozoa are characterized by a more or less extensive phase of the life cycle in which the formed nucleus is replaced by such granules of chromatin, or the chromidium, the chromatin arising by secretion or disintegration of the nucleus. It

is to this phenomenon in particular that I wish to call your attention, the various phases in the life history of the small-pox organism being interpreted through it.

In the group of protozoa known as the rhizopods the chromidium does not exist at all times, but in the majority of cases, is formed only at periods preceding sexual reproduction. This is the case, for example, in the great division of the foraminifera, where in forms like *Polystomella*, the nuclei first divide a number of times, giving rise to multi-nucleated cells. The nuclei then break down and disappear as formed elements, the chromatin being distributed throughout the cell in granular form, thus giving rise to the chromidium by fragmentation. In *Arcella* and other fresh water rhizopods, on the other hand, the chromidium granules exude through the membrane of the vegetative nucleus until a mass of irregular chromatin material lies free in the cell, while the vegetative nucleus retains its original form. This latter type of the chromidium is found among the parasitic amœbæ in forms like *Chlamydophrys stercorea*, *Entamœba*, etc., and is particularly characteristic of the rhizopods.

In all cases, the chromidium is the most important material of the protozoon cell, for from its substance the minute nuclei of the conjugating gametes are formed. It may be called the sexual chromatin, while the formed vegetative nucleus in every case degenerates and disappears, playing no part whatsoever in reproduction, at least of sexual reproduction. If no formed nucleus is present in the cell, therefore, we should expect the chromidium at least to be present.

This is precisely the case in the questionable organisms with which we are dealing. It is also the case in the bacteria and in some of the lower flagellated protozoa.

An important and illuminating side light on *Cytoryctes variolæ* is shed by the facts of *Neuroryctes hydrophobiæ*, the cause of rabies. The greater part of the life history of this organism is characterized by the absence of a formed nucleus, which appears only in the young stages as a small group of chromatin granules. As the young organism grows, however, the granules increase in number and spread throughout the cell, the original nucleus being recognizable for a considerable period.

The granules of *Neuroryctes* are difficult to stain, possibly owing to the mode of life of the parasite in the nerve cells, and the first observations that were made on it led to the belief that it, like *Cytoryctes*, is a structure without any of the structural characteristics of a living thing. The ordinary method that was first used,

showed it as a highly vesiculated body in which no nucleus or other part could be differentiated, and, as the Negri body, its organized nature was discredited. Subsequent research by Negri and his collaborators in Italy, and the splendid work of Dr. Williams in this country, have established the protozoön nature of the Negri bodies beyond any question. The latter, using a smear method, was able to fix and stain the organisms perfectly, and the vesicles which appeared in the earlier preparations, now appeared in her preparations as chromatin granules. She was able to show that the organisms reproduce by budding and by division; the process taking place in essentially the same way as in *Entamœba histolytica*, according to Schaudinn's interpretation. In *Entamœba*, the chromidium is formed prior to the budding process, and the buds are formed as small buttons on the periphery of the cell, each receiving, not a nucleus, but granules of chromatin which formed the chromidium. So with *Neuroryctes*, Williams found that buds appear as small protuberances on the periphery, each protuberance receiving a portion of the granular chromidium.

No one doubts the fact that *Entamœba histolytica* is an organism, and an organism closely associated with, if not the cause of one form of dysentery, and the time will come when no one will doubt that *Neuroryctes* is an amœboid organism, the cause of hydrophobia. The two organisms are somewhat alike in their effects, *Entamœba* bringing about a characteristic lysis in the wall of the gut, while *Neuroryctes* causes destruction of nerve and brain cells.

Cytoryctes variolæ is similar to *Neuroryctes* and *Entamœba* in its general effect on the tissues, but the tissue in this case is the skin, the most difficult of all of the tissues of the body to work with in the laboratory, because of its resistance to hardening fluids and to the knife. Fixation of the organ, therefore, in the skin cells or in the cornea is no better than were the earliest attempts to fix the Negri body, and, laboring under this technical disadvantage, the life history of this organism is more difficult to work out than any of the others. The complicated life cycle which I described three years ago, was worked out on hardened material, and at a time before the work on rhizopods had been done in tracing the significance of the chromidium, and before the structure of the Negri body had been described. The attempt to account for every stage observed in the cells of the small-pox skin, led me to suggest a complicated life history of *Cytoryctes* which is duplicated in only one group of the protozoa,

the Microsporidia, and I therefore placed the organism in the order Microsporidia, class Sporozoa. The later researches on rhizopods, and especially on the parasitic amœbæ, *Neuroryctes* and *Entamoeba*, have shown that I was in error, and that the structures observed in the different phases of the small-pox organism correspond with different stages of rhizopod cell life.

The earliest of the small-pox forms is a minute cytoplasmic organism which resembles the young *Neuroryctes*. In very favorable preparations from the cornea a central spot which takes a nuclear stain can be made out. Such a nuclear structure is very difficult to demonstrate, however, and this stage must be passed over as uncertain. There is no uncertainty in regard to the later cytoplasmic stages; and structures appear which are practically duplicates of the minute nucleus formation in free living rhizopods, the nuclei arising, as in the free forms, from the substance of the chromidium. These small nuclei are seen not only in preparations from the skin and cornea, but in fresh tissue in which they have been photographed with the aid of the ultra-violet light.

Inside the nucleus of skin cells during the process of vesicle formation, the organism presents a characteristic appearance. It is usually vesicular, and vesicular in a typical formation, recalling in a striking manner, the structure of the Negri body in preparations made before the present technique was established. In addition to this typical form, other intranuclear bodies are present which give striking evidence of reproductive phases more or less similar to those of the cytoplasmic forms.

At the present time I would interpret the organism of small-pox as a rhizopod in which only one phase of the life history is known, viz., the asexual or vegetative phase. This is characterized by development of the chromidium and formation of small reproductive spores ("gemmules"), which repeat the cytoplasmic cycle. The intra-nuclear forms possibly belong to the sexual cycle, and it is not improbable that, as Councilman early suggested, the intra-nuclear forms may be a different cycle of the organism occurring in variola and not in vaccinia. I would interpret the vesicular forms as either poorly fixed organisms, or as degeneration forms of the organism, the degeneration being produced by the accumulation of toxins found in the breaking down vesicle. In any event the intra-nuclear forms of the organism present a different history from that of the cytoplasmic forms, and this history remains for some one to work out on well-fixed tissue, or better, on the living organism.

EDITORIAL.

FEUILLETON.

THE SIXTH INTERNATIONAL DERMATOLOGICAL CONGRESS.

AN international congress is always an event, even if there is not a sensational or epoch-making discovery to announce. In the incessant evolution of medicine, the conceptions of every disease are constantly changing, and when leading men of all countries gather together, to them belongs the task of summing up the evidence, and of establishing, for the time being, the status of some of the important problems. The conclusions emerging finally from a perhaps lively, but loyal and earnestly scientific, discussion of a Congress are stamped with a greater authority than the work of a single individual. We all instinctively feel this, and it accounts for the tendency many have to look up to such assemblies as the proper bodies to legislate on medical matters; it seems as if an International Congress, the result of a long continued and well-co-ordinated effort, ought not to disband without giving to the world at large a tangible monument of its activities in the shape of some medical ruling devised for the hygienic welfare of mankind. But now, these broad conceptions do not reckon enough with the naturally individualistic tendencies of the members of the Congress; in the clash, general ideas are always the losers.

Such is, and always will be, the law, and in this respect, the Sixth International Dermatological Congress followed the example of its predecessors. Thus the revision of the nomenclature, hinted at by Dr. Bryant, and explicitly urged by President White in his opening address, is yet to come, though I feel sure every member of the Congress agreed as to its desirability. Thus, nothing has come out, in the way of official action, from the proposals to diminish the diffusion of lepra. Thus, again, when the importance of a more thorough study of dermatology, one of the chief topics of Surgeon-General Rixey's address, was drawn to the attention of the Congress by one of its members, the only reply was that, in the present overburdened condition of the curriculum, no relief was in sight. Thus, at least, the proposals to have cutaneous tuberculosis placed on an equal footing with other tuberculoses, from the standpoint of prophylaxis did not even come up for consideration.

Although the Congress has not taken action in these matters, it has done good work in advancing the cause of dermatology. It has discussed some of the most important among the moot questions of the day. Let us glance simply at the list of themes and communications: leprosy, tuberculosis of the skin, smallpox, opsonins, blastomycosis, physiotherapy, tropical dermatology, syphilis, and we rest assured that such a programme is not suggestive of laziness or dullness. In it we find the "staple" questions of dermatology, without which no self-respecting Congress could exist; and also some of the most fascinating among the newer problems. Let us add a host of personal communications, all possessed with interest, and we may realize that the week of the Congress was an active and profitable one, medically speaking, not to mention the side-line activities of our foreign guests.

Leprosy came first chronologically. The real issue was the contagiousity or non-contagiousity of the later stages of the disease. Professor Campana ably sustained the contention that, after a certain time, the virulence considerably abates; but, as we have no criterion whatever to judge of this non-contagiousity, it would seem unwise to relax the isolation rules, which, as many testified, has given good results in Louisiana, in Hawaii, and elsewhere.

Cutaneous tuberculosis came up next. It is to be regretted that the authors of most communications on the subject were unable to attend the Congress. But we have heard some papers on that much discussed disease, lupus erythematosus, the true etiology of which we can hardly be said to understand fully. If treatment may be used as a criterion, it seems that several etiological factors are to be incriminated.

Smallpox is not, properly speaking, a dermatological affection, but the skin lesions have in it such a preponderating importance that it may be fittingly discussed at a dermatological Congress. In the skin is found the etiological microörganism whose life-cycle Professors Councilman and Calkins described. Their findings shed much light on the obscure relations existing between vaccine and smallpox, and bid fair to mark an important progress in general pathology.

The question of opsonins is a new one and it could not but be discussed in the Sixth International Dermatological Congress. It has been discussed fully: the principles and the technique have been reviewed at length and several statistics of results have been brought forward; the results are more than encouraging. Bacterial inoculations promise to become the method of choice in the treatment of all

suppurative dermatitides, and it may already be stated that it is the only reliable therapeutical agent we have against recurrent furunculosis. Results are perhaps not as good in cases of tuberculous affections but they still remain better than most of those obtained by older methods. We shall certainly hear something more about opsonins in dermatology in Rome in 1911.

Much has been said since a few years about mycotic affections of the skin. Sporotrichosis is now exciting considerable interest in France, actinomycosis and blastomycosis are always interesting. No good reason was advanced why blastomycosis occurs with so much greater frequency in the Middle West, although it was admitted by every one familiar with the facts that this statement was true.

Physiotherapy has become one of the principal, if not the principal, factor of therapeutics in skin diseases. Therefore, no special gift of prophecy was needed to foretell that it would take a large place in the programme of the Congress. Phototherapy proper was somewhat neglected, but radium and X-rays received a good deal of attention. Dr. Abbe's splendid collection of casts demonstrated amply the unique and specific action of radium against disorderly growing cells. The results of radiotherapy in the treatment of skin diseases and epithelioma were exposed in several statistics, and these furnished confirmative evidence of the value of that agent when properly handled and applied to suitable cases.

Ten years ago, tropical diseases of the skin formed practically an unexplored field studied only by a few British colonial army surgeons; now, they arouse a widespread interest in almost all countries, and particularly so in the United States on account of our newly acquired tropical domain. As might naturally be expected, the medical force of the navy figured prominently in that part of the Sixth International Dermatological Congress devoted to tropical dermatology. Efforts were made to classify the numerous tropical ulcers and sores, and that puzzling affection, gangosa; and some better known tropical conditions. Madura foot, filariasis, tinea, imbricata, etc., also figured on the programme.

Friday brought up the foremost question: Syphilis and more particularly its cause. Our knowledge of the etiology of syphilis has been revolutionized since the Berlin Congress, by the discovery and study of the spirachæta pallida; and such a capital theme could not but be one of the salient features of the meeting. We were fortunate enough to have among the speakers, Professor Erich Hoffmann; this is enough to show that interest was not slack for a single moment. In his report he made very clearly his point, namely, that

the etiological rôle of the organism he discovered with the lamented Schaudinn, is generally admitted; and this was also the opinion of the other eminent men who took up the subject.

Besides those official themes, there were a number of personal communications. If I should say the word of praise each one of the deserves, the space allotted me would be much too short. Therefore, I shall simply say, in closing, that the organization was perfect, and that many, nay, all, of our foreign colleagues were loud in their heartfelt praises of American hospitality. For a majority of them, America was an altogether new country; all former Congresses had been held on European soil. It may be long before America harbors a second dermatological meeting; but when that time comes, I know that few of those who attended the first will hesitate to cross over again to see a little more of the country which impressed them so favorably.

F. E. G.

SOCIETY TRANSACTIONS.

A BRIEF RÉSUMÉ OF THE WORK OF THE SIXTH INTERNATIONAL DERMATOLOGICAL CONGRESS

For the first time since its organization in 1889 the International Congress of Dermatology met on this side of the Atlantic. The sixth one of its kind, it convened in New York City from the 9th to the 14th of September at the Academy of Medicine, under the presidency of Dr. James C. White of Boston.

With an attendance of nearly 250 members from this country and abroad, and the contribution of 76 papers, it is superfluous to speak of the interest and enthusiasm manifested, especially when, among the participants, appear the names of such leading men as Dr. Crocker, Professor Veiel, Professor Gaucher, Dr. Hallopeau, Professor Hoffmann, Professor Campana, Professor Wolf, Dr. Bertarelli, and others. A number of the foreign universities as well as the London, Berlin, French, Belgian, Italian, Charkow and Odessa Dermatological Societies sent delegates. Belgium, Portugal, Mexico, Greece, Ecuador, and Guatemala were likewise represented.

The meeting was opened on Monday morning, September 9, with an address of welcome by Surgeon-General P. M. Rixey, U. S. Navy, representing President Roosevelt. He was followed by Dr. Ira Remsen, President of Johns Hopkins University, who spoke for American Universities, and Dr. Joseph D. Bryant, President of the American Medical Association, in behalf of the Medical Profession of the United States.

The morning session was brought to a close with the address of Dr. White, President of the Congress.

In his remarks Dr. Rixey mentioned the progress made in his Department since he came to the head of it, and of the influence of our tropical acquisitions on discovery and advance in medical science. In his Naval Medical School he found that the proportion of dermatological diseases to all others was about 13 per cent. This showed the importance of the subject, and the Graduate Naval School at Washington was giving more and more attention to skin affections, those conditions furnishing their most interesting reports to-day, especially in connection with tropical medicine.

President Remsen said that universities were the training grounds of research. This was now recognized in this country, and there was at present a well-defined university movement among the medical schools. Universities were taking possession of medical schools, and the latter were trying to get under cover of the universities. The reason for it was that the atmosphere of research was the best atmosphere for teaching. Another cause lay in the fact that in the old days the medical school was a profitable one, but it was so no longer if properly conducted. The medical schools and medical departments of universities were now on the same footing as other branches of higher education, and, while the medical school under the old régime could not hope for endowment, the university could.

Dr. Bryant extended a cordial greeting in the name of the American Medical Association, and invited the encouragement and co-operation of the Congress in bringing about, in the early future, that harmony among the medical profession of the world in all matters that will further the health, contentment, and security of the people.

Dr. White, in his address, cautioned against the unnecessary division of diseases and the multiplication of titles, as they tend to magnify the significance of slight clinical variations, attribute to them specific importance, and emphasize their pseudo-independence, by bestowing on them individual titles. Well-established landmarks in dermatology should not be changed excepting for reasons founded on demonstrable differences in anatomy and etiology. He believed in the creation of a standing committee of the Congress to consider the subject in a broad way, composed of members from different parts of the world, unprejudiced by past systems of schools or individuals. Among the important questions for them to act on he suggested: 1. What are the influences of race, geographical conditions, climate, national customs, etc., upon the evolution and type of diseases of the skin? 2. What variations did emigration induce in dermatoses? 3. What cutaneous affections should national governments regard as infective, and seek to control by restriction of immigration, enforced isolation, and similar measures? 4. How far was it possible and incumbent upon national governments to control

the continuance and prevalence of hereditary dermatoses by restrictions upon marriage laws? 5. Should not the influence of this body be directed to induce governments to aid in the support of researches bearing upon sanitary questions of material importance?

Tropical affections, Dr. White said, should be studied in their homes by experienced dermatologists. A large fund should be raised and the aid of the respective governments solicited in behalf of the work. An international committee, consisting partly of the members of the Congress and partly of well-known authorities on tropical diseases in all parts of the world, might be established to raise the means and to superintend such investigation.

Looking backward over his fifty years of study and practice in affections of the skin, he said he recognized three distinct eras of advance: 1. The knowledge founded on a more careful study of the external manifestations and unbiased interpretations of clinical phenomena. 2. A deeper knowledge of the minute anatomy of tissue changes in and a more scientific grouping of dermatoses. 3. The recognition of the real nature and cause of visible lesions, and the essence of disease—a true system of pathology, as well as the promise of attainment of the power of prevention, of establishing immunity, and of founding a broader system of rational therapeutics. Dr. White then considered the results of our knowledge of modern cutaneous pathology on practical therapeutics, and spoke of the noteworthy progress, especially in research work, which has been made since the last meeting of the Congress in Berlin. The discovery of the *spirochæta pallida* had stimulated scientific workers in all parts of the world.

The three official Themes selected by the Organization Committee were:

1. The Etiological Relationship of Organisms Found in the Skin in Exanthemata.
2. Tropical Disease of the Skin.
3. *a.* The Possibility of Immunization against Syphilis.
b. The Present Status of Our Knowledge of the Parasitology of Syphilis.

In his report on smallpox, Professor W. T. Councilman of Boston said the cause of that disease was believed to be a parasitic organism having its habitat in the epithelial cells of the specific lesions of the skin, and named by Guanieri, *Cytoryctes variolæ*. The same organism up to a certain period of development was found in vaccinia. There were probably two cycles of development: (1) An imperfect cycle, probably analogous to the asexual cycle of the coccidia, which was common to both vaccinia and smallpox. (2) A complete cycle, representing a further development of the vaccine cycle, which was only found in smallpox. The virus of smallpox differed from that of vaccinia in its capacity of transmission without contact. The monkey was suscep-

tible to the smallpox virus with specific lesions and a complete cycle of the parasite. Inoculation of the rabbit or calf with smallpox material produced a disease comparable to vaccinia with the incomplete cycle of the organism. The inoculation smallpox of the monkey could be transmitted from animal to animal. The vaccinia produced in the calf or the rabbit by inoculation of smallpox material was transmitted as vaccinia from animal to animal. Monkeys were susceptible to smallpox only by artificial inoculation. In addition to the skin lesions, specific lesions were also found in the bone marrow and testicle. All other lesions of the skin were not specific, and were to be attributed either to the action of the toxins or to the action of bacteria, chiefly streptococci.

Professor Gary N. Calkins of New York, in his discussion, said that he would interpret the organism of smallpox as a rhizopod in which only one phase of the life history was known, namely the asexual or vegetative phase.

The subject of tropical diseases received valuable contributions from Surgeon-General P. M. Rixey, Dr. Radcliffe-Crocker, Dr. Stitt, Dr. Dubreuilh, Dr. Stiles, Dr. Castellani, Dr. O. J. Mink, and Dr. N. T. McLean, Dr. George C. Shattuck, and Dr. T. Tanaka.

Both morning and afternoon sessions on Friday were devoted to the topic of syphilis. Professor Hoffmann, of Berlin, in his able paper showed the etiological relationship between *Spirochæta pallida* and syphilis, and demonstrated the organism in the living state, as well as in smears and tissues. Quaternary or Attenuated Syphilis of Recticular Tissues (Appendicitis, Adenoid Vegetations, and Scrofula) was the subject of Professor Gaucher's paper, while other contributions on the lesions and parasitology of lues were made by Dr. Hallopeau and Dr. Gastou, Professor S. Ehrmann, Dr. Hermann G. Klotz, etc.

Another subject of interest was leprosy. In his paper on "The Proposals to Diminish the Diffusion of Leprosy, and Its Treatment," Professor Campana, of Rome, said that a mutual understanding should be arrived at among the civilized nations concerning the treatment of this disease. Local treatment was necessary in the initial stages of macular and tubercular symptoms. Tubercular leprosy was a purely local disease, and its contagiousness was in direct proportion to the shortness of the time that the malady had lasted. It was difficult to state the exact time when the infectious period disappeared, but that the infectious character of the disease disappeared with its full development. In the discussion Dr. Campana said that in order to prevent the spread it was necessary to destroy the sources of infection, and he did not wish to have it understood that he was opposed to the advisability of protecting the community against the spread by proper segregation.

Dr. Walter R. Brinckerhoff, Honolulu, said that in Hawaii the disease had been kept under control for over forty years by segregation.

It was extremely difficult to persuade lepers to enter leprosaria, as they were prejudiced against these institutions, the popular conception being they went there to die.

Dr. Dyer, New Orleans, said that the trophic types were evidence that the disease was more or less effete. The method of isolation practiced in Louisiana had reduced the number of cases to nearly one-quarter what it was when isolation was commenced. He regarded the treatment of leprosy practically the same as that of tuberculosis—administering in addition chaulmoogra oil, but in cases where it could not be tolerated in large doses, cod-liver oil, or some other oil, was substituted with practically equally good results.

Dr. Burnside Foster, St. Paul, said that he recognized the communicability of the disease, but he believed that it was communicated with great difficulty, and could only be engrafted upon a peculiar soil, and that there were many who could not be inoculated with it.

Opsonins and opsonic index received due consideration in papers read by Dr. Arthur Whitfield, of London, and Dr. E. M. Von Eberts, of Montreal, the technique and results of treatment being given. Drs. Schamberg, Gildersleeve and Shoemaker, of Philadelphia, presented a paper on Bacterial Injections in the Treatment of Diseases of the Skin. In the discussion which followed Dr. E. R. Larned, Detroit, said that if it was necessary in each case to compute the opsonic index in order to regulate the size of the dose, and to use autogenic instead of stock vaccines, then only those cases could be treated which were within easy reach of the laboratory, and it would be a long time before the method would become of general practical value. Dr. Stopford Taylor, Liverpool, said some of his cases of acne and sycosis improved under the use of vaccines, but the majority required X-ray treatment before a cure resulted.

Radiotherapy also called for a good deal of discussion. Dr. Robert Abbe, New York, demonstrated wax casts, showing the results from the use of radium in epithelioma. Dr. Lawrence, of Melbourne, described X-ray baths with which he had treated some five hundred patients. Apropos of Dr. Abbe's paper, he said that in cases of rodent ulcer of the eyelid he regarded radium as the best method of treatment, particularly as it left no scar. Also in seborrhœal keratosis senilis, in which cases there was a great tendency to atrophy of the skin after the use of the X-ray. He had also used it to advantage in pigmented moles and in seborrhœal eczema of the eyebrow.

Dr. Neuberger, of Nuremberg, referred to a case of Paget's disease of the penis in which the effect of the X-ray treatment in the beginning was very marked, the affection apparently being cured. It subsequently recurred, however, and then the X-rays had seemingly lost their effect. The urethral orifice became narrowed, micturition was impossible and amputation finally became imperative.

Dr. Hartzell, Philadelphia, said that he admitted the proper treatment of epithelioma of the lower lid was excision, with removal of the adjacent glands, but there were certain cases in which resort to the X-rays was entirely proper, and sometimes necessary. Dr. Francis J. Shepherd, Montreal, said that when it came to lesions of the lower lip and the muco-cutaneous surfaces, he strongly objected to the use of the rays, especially where there was early involvement of the glands.

An interesting clinical exhibition was held on three mornings of the week, many rare and unique cases being presented. Formal discussions on a number of them took place, and it was a matter of deep regret that, on account of the limited time, this valuable demonstration could not be prolonged.

The scientific exhibition on the top floor of the Academy was also an unusually large one. Excellent photographs, drawings, and water colors, clinical and microscopical, were displayed, as well as cultures, gross and microscopical specimens, and wax casts.

Although the scientific programme was such a full one, the social side of the Congress was by no means neglected. The President, Dr. White, held a reception at the Waldorf-Astoria on the opening night. In the middle of the week there was an excursion up the Hudson, with dinner at Coney Island, and on the evening before the close of the Congress the members attended a banquet at the Waldorf-Astoria. In addition to these public functions numerous private entertainments were given.

At a business meeting on Wednesday morning, September 11, Rome was selected as the meeting place of the Seventh International Dermatological Congress in 1911, and Professor T. DeAmicis, of Naples, elected as its President.

THE NEW YORK DERMATOLOGICAL SOCIETY.

352d REGULAR MEETING, OCTOBER 22, 1907.

E. B. BRONSON, M. D., PRESIDENT.

Lupus Erythematosus. Presented by Dr. BRONSON.

The patient was a woman 55 years of age, married. She had a good family history, with no evidence of tuberculous tendencies, and had herself generally enjoyed fair health, excepting that about eight years ago she suffered from dropsy—due, it was supposed, to kidney disease. At about that time the affection of the face from which she is now suffering began upon the forehead. It had never healed since, but had gradually spread over the face. There were irregularly shaped, rounded, sharply circumscribed, red, scaling patches scattered over and occupying a large portion of the face, including forehead, nose, cheeks, chin, and ears. In the center of the patches there was noticeable

atrophy, with some depression and dilated bloodvessels. At the border of most of the patches was a slightly raised brownish border. Upon the lobe of the left ear were several smooth, round elevated spots of pea-size, that were resistant to the touch, and showed no sign of atrophy in the center. Their surfaces were brownish red in color, and traversed by dilated blood vessels. It seemed these lesions belonged to the "nodular form" of the disease described by Crocker, which shows less tendency to spread at the periphery, has a more marked elevation, is attended frequently by telangiectasis, undergoing slow involution, and does not show the same tendency to central atrophy observed in the usual patches of lupus erythematosus.

For the past ten days the patient has been under treatment—50 per cent. resorcin in gelanth applied continuously, which had effected a marked change in the hyperæmia, and has reduced the elevation of the borders, which was characteristic of nearly all the patches, and even the little nodules on the lobes of the ear had become somewhat shriveled and less elevated.

Dr. LUSTGARTEN was not inclined to accept the diagnosis, and suggested that a microscopic examination would probably show that it belonged to the class of tubercular affections of the skin.

Dr. FORDYCE said that some of the features were obscured by the result of the resorcin applications which had been made, although there were areas in which the infiltration was quite marked. He believed, on account of its extensive distribution and the time of life in which it developed, that it was lupus erythematosus.

Dr. WHITEHOUSE said that in some instances we do see lupus erythematosus with considerable infiltration resembling lupus vulgaris. One would expect to see some lesions on the scalp, but that was not an essential feature.

Dr. BRONSON said that he was not surprised at the doubt expressed in regard to the diagnosis. When the case was first examined, the diagnosis seemed doubtful. The appearances were certainly unusual. He had thought of lupus vulgaris, but the condition lacks more of the features of that affection than of lupus erythematosus. The infiltration was much less than would have been present in a tuberculosis of the skin; and on pressing a glass over it, the color did not appear to be what it would be in a lupus vulgaris; the whole surface was dusky, with a good deal of brown pigmentation. The part that most resembled lupus vulgaris, was that on the lobe of the ear. There it had the appearance somewhat of a hypertrophic or papillomatous form of lupus. Here there was a certain amount of resistance to the touch, but no apparent tendency to involution, which would be a point against both lupus erythematosus and lupus vulgaris. It had remained the same for years with very little change. It corresponds very closely to Crocker's description of the nodular form of lupus erythematosus. Another feature which seemed in favor of lupus erythematosus rather than lupus vulgaris, was the mode of progress of the disease, as well as the manifestations which were left in its course. The atrophy in the center was quite distinct, and was even more marked before the applications of resorcin had been applied. The center was decidedly depressed and atrophic. It appeared somewhat shriveled, but not contracted or striated as would be the case in lupus vulgaris. The latter would not leave such a smooth scar, and when cicatrization tissue results, it is followed by contraction, which is entirely absent in this case. Another point was that he

did not believe that the resorcin application would have had the decided effect on lupus vulgaris that it had had in the present case.

Lupus Erythematosus. Presented by Dr. FORDYCE.

The patient, a woman about 32, gave the following history: Four years before she had been exposed to a considerable degree of cold in driving in the open air in winter. This exposure resulted in pain and swelling under her eyes. Later the present condition developed, and has continued to spread slowly since that time. It consisted of a superficial red infiltration involving both lower eyelids, covered by a slight amount of scaling. The scales were very firmly adherent. In places a slight degree of atrophy could be made out. The entire condition was fairly typical of lupus erythematosus in a minor degree of development. It was chiefly interesting on account of the unusual location. The patient was desirous of being cured without a resulting ectropion, and, therefore, therapeutic suggestions would be welcomed.

Dr. JACKSON thought it was lupus erythematosus, though in a very unusual location.

Dr. WINFIELD agreed with the diagnosis, and said that unless the case were very carefully treated, there would be some deformity. It seemed probable that there would be some any way.

Dr. FOX said that he had seen some cases of lupus erythematosus in small patches on the eyelids, and had treated them successfully with carbolic acid. In most cases he would remove them by curetting. If there were any subsequent ectropion, he would be inclined to attribute it to the lupus and not to the curetting.

Dr. HOLDER said that the lesions were so small and the location so unusual that he hesitated about making a diagnosis. The small amount of atrophy on the left eye would seem to confirm the diagnosis, but he would have to study the case further before being positive about it. He did not think that a biopsy would establish anything.

Dr. LUSTGARTEN said that he did not remember having seen such an extensive condition in this locality. The atrophy is so superficial that the contraction is usually not great, and this could be equalized by stretching the neighboring skin a little. He suggested the use of quinine in the treatment, and reminded the members that he had shown a case of lupus erythematosus before the Society where the result of this treatment was most encouraging. He also suggested, after the scabs and crusts had been removed very carefully, the application of very small sparks of the high-frequency current. He had obtained some excellent results in lupus erythematosus treated this way.

Dr. SHERWELL, referring to the possibility of an ectropion, said that the disease ordinarily should have caused some destruction of the subcutaneous connective tissues in order to cause that trouble. He had seen a great many of these cases of light erythematosus lupus recover entirely under very simple treatment—for instance the strong lotio alba. For the fluid ingredients of this, he preferred, instead of using plain water or rose water, equal quantities to make same amount of water, camphor water and alcohol. He believed that the presence of alcohol in this mixture made the preparation far more efficacious.

Dr. MORROW said that the localization of the lesion was the interesting feature in this case. He had never seen a case of lupus erythematosus restricted to this

precise locality. A diagnosis, however, could be reached not only by the appearance of the lesions, but by exclusion. He knew of no other skin affection that would produce just these lesions. There are so many simple forms of treatment that are occasionally effective in lupus erythematosus, that he would be inclined to try some of the non-caustic, non-irritating methods before resorting to curettage. The ciliary margins seem to be involved in this case, there being a distinct loss of the eyelashes on a considerable portion of the lower lid.

Dr. WHITEHOUSE said that he did not question the diagnosis, and agreed with the recommendation of mild therapeutic treatment. The disease does not produce a deep atrophy, and if it resolved spontaneously in this case it would not produce ectropion; severe treatment, however, might result in a contraction.

In regard to Dr. Lustgarten's suggestions for internal treatment—we do not know how these things act. Numerous remedies have been used internally besides the Hollander treatment. He, himself, had had several cases of lupus erythematosus of the superficial type which did nothing under local treatment by lotio alba, but disappeared entirely under iodoform internally, when added to the local treatment. Whether the disease had disappeared spontaneously while taking the remedy, he could not say, but if it did it was strange it did not disappear spontaneously under the same local treatment before the internal remedy was added.

Dr. FORDYCE said that he had photographs showing the occurrence of ectropion of the lower lid in lupus erythematosus. The infiltration in that affection sometimes extended quite deeply, so that in the process of the natural involution of the disease, or as the result of treatment, deformities of the lids could take place. The scaling in the case in question was very characteristic. This, together with the long duration in one place and the etiological factor concerned, left little doubt as to its nature.

Dr. WHITEHOUSE inquired whether in the photographs referred to, any note had been made as to the form of treatment.

Dr. FORDYCE said that the ectropion might have been the result of treatment. It was a case of extensive lupus erythematosus of the face, and the lid was drawn down and inverted.

Case for Diagnosis. (Dermatitis seborrhœica.) Presented by Dr. Fox.

The patient for eight years has had an eruption every summer on the forearms, which got better as the cold weather appeared. At present there is a pink, scaly eruption on the forearms, which may or may not be of the same character as the eruption on the face. With the eruption on the arms there has heretofore been only a slight eruption on the face, but this year the face eruption is quite marked. There are patches around the nose, along the margin of the hair, and behind the ears. She says that hitherto it has all disappeared with the cold weather. There is very little or no scaling on the face. The scalp is scaly, especially on the back of the head. Around the eyes there is a severe burning sensation. It has lasted now for about two months and is growing worse. There is also a very slight eruption on the knees and legs. There is nothing on the chest to speak of.

Dr. LUSTGARTEN said that it seemed to be one of those border-line cases, the exact nature of which it was difficult to determine. It might be a case of eczema. It could hardly be classified under any of the well known names, and might be included under the classification of parapsoriasis, as it presents some of the features of that group.

Dr. MORROW said that while it does not conform to the features of typical eczema seborrhœicum, yet it might be more properly classed under that term than any other. The character of the eruption on the face and behind the ears, and the condition of the scalp would support that diagnosis, but he had never seen a seborrhœic eczema present the appearances observed on the arms and legs. Dr. Fox had suggested that there might be two distinct eruptions present, but the fact that the one on the face occurred coincidentally with that on the arms and legs, would indicate that the two were of the same general nature. He was inclined to call it eczema seborrhœicum of an unusual type.

Dr. WHITEHOUSE agreed that the case presented more of the features of eczema seborrhœicum than any other affection, and thought that the condition on the arms was perfectly consistent with that diagnosis. We see seborrhœic eczema on the extremities and nares very much like this type. The condition on the ears, on the border of the hair, and on the scalp resemble seborrhœic dermatitis. He asked Dr. Fox if the patient had any alcoholic history, which might determine the inflammatory character of the circinate patches. He had seen in so-called seborrhœic eczema just such an inflammatory type as this in alcoholic subjects, and he had wondered if that might be a feature in this case.

Dr. Fox replied that he had no knowledge of any such history.

Dr. JACKSON agreed with the diagnosis of seborrhœic dermatitis.

Dr. BRONSON suggested that the condition might be produced as a reflex effect on some internal disorder, and that Auspitz's term erythanthema was an appropriate one in this case.

Dr. WINFIELD said that the French dermatologists would probably call it parapsoriasis. He felt no doubt that it was a seborrhœic condition and was inclined to the term seborrhœic dermatitis rather than seborrhœic eczema.

Dr. Fox said that he had never before met a case just like it, and was inclined to think that if the others saw it in daylight, they would agree that the eruption on the face might be distinct from that on the arms. He did not like to use the term parapsoriasis in connection with it, for he did not consider it at all psoriatic in its nature. He approved of the term erythanthema suggested by Dr. Bronson. It was not only euphonious, but exactly describes the condition on the face. The color here was a bright red instead of a yellowish red as on the arms, resembling the condition often seen in erythema multiforme. It was certainly an erythema, in spite of the oily skin. He did not think the eruption seborrhœal. It appears to differ materially from the scaly infiltration on the extensor surface of the forearms and on the legs.

In response to a suggestion from Dr. Morrow that the patient seemed to have crusts and scales on the scalp, Dr. Fox replied that the majority of dispensary patients are likely to have a similar condition, as well as others outside of the dispensaries, and this fact did not prove the seborrhœal character of an eruption elsewhere.

Dr. SHIERWELL said that the case seemed to him to be what Unna calls seborrhœic eczema as to location in all except absence over the sternal region, where it so typically appears in these cases ordinarily. He did not like the term, but preferred to call it a form of seborrhœic dermatitis. It was in more pronounced cases a very difficult matter to differentiate from a psoriatic condition.

Syphiloderm on the lower right corner of the mouth. Presented by Dr. Fox.

Dr. Fox said that he had presented this patient before the Society several months ago, and at that time there was a difference of opinion as to the character of the trouble—some thinking that it was specific, others that it was tuberculous. There seems to be no doubt about it

to-night. It got nearly well under mixed treatment, and then relapsed as she neglected treatment, increasing in extent.

Dr. WINFIELD said that there certainly was now no doubt about the diagnosis.

Dr. WHITEHOUSE said that he still inclined to regard the disease as a case of tubercular ulcerating syphilis.

Dr. Fox said that it was not a case of long standing. The patient is a young married woman. Some of the members, when the case was first presented, thought it was an initial lesion.

Dr. MORROW said that it was a question between an initial lesion and a tertiary lesion. That was his opinion when he first saw the case, and the present appearance and the history of the case did not alter that opinion.

Dr. SHERWELL agreed with the diagnosis of syphilis.

Dr. Fox said that when he first presented the case it was a question whether it was an initial or a tertiary lesion, though some of the members thought it might be tuberculous in origin. It simply goes to show that a late specific lesion at first may be difficult of recognition, and may then develop into a characteristic syphilitic patch.

Prurigo. Presented by Dr. Fox.

This little girl is at present a patient in the Skin and Cancer Hospital. She was treated at Randall's Island four years ago for a similar condition, and came out well, but it recurred again six months later. She was treated at the Skin and Cancer Hospital, two years ago, and then went out comparatively well, but now has returned to the hospital for treatment. She has been there for about four weeks, and has improved very much. She says she had had the trouble since she was two years old. She is now 14. The eruption does not bother her in the winter, but comes on in the spring.

Dr. Holder, Dr. Whitehouse, Dr. Fordyce, and Dr. Sherwell agreed with the diagnosis of prurigo of a mild type.

Dr. Fox said that when he had said the case had been cured at Randall's Island and afterward at the Skin and Cancer Hospital, he meant that the eruption had disappeared and the skin had presented a healthy appearance. The child leaves apparently cured, but returns again later with the skin in the same condition. The girl is otherwise in pretty good general health and condition, and the skin responds quickly to an emollient treatment—a mild creosote ointment. The eruption seems more amenable to treatment than the ordinary prurigo type. The girl will probably have many relapses, and will probably be a victim more or less for the remainder of her life.

THE PHILADELPHIA DERMATOLOGICAL SOCIETY.

The regular monthly meeting of the Philadelphia Dermatological Society was held at the Polyclinic Hospital, on Tuesday evening, October 15, 1907, at 8.30 o'clock. Dr. M. B. Hartzell, presiding.

A probable case of pemphigus foliaceus was presented by Dr. Knowles, through the courtesy of Dr. Stelwagon. The patient was a girl, thirteen months of age, of Italian parentage. The eruption began when the child was four months old, with an outbreak of bullæ on the buttocks, and surrounding the mouth. The patient was first examined in April, at which time the buttocks, the thighs extending to the popliteal spaces, the lumbar region, the dorsal surfaces of the hands, feet, the wrists, the ankles, chin, the upper lip, and the nape of the neck were involved. The eruption was for the most part bullous in character, the bullæ being hazel-nut to hen's-egg in size. These bullæ have been constantly appearing for the last nine months, the child never being entirely free from them. Only the sites mentioned have been attacked, excepting the mucous membranes of the lips. Crop after crop of these bullæ have appeared on the same areas, only to dry up, exfoliate, leaving the epidermis denuded, and to be followed by a fresh outbreak. The child has been constantly losing weight, until now she is extremely emaciated.

A case of extragenital chancre, in a girl of two years, was exhibited by Dr. Knowles, through the courtesy of Dr. Van Harlingen. The patient was first seen on September the thirtieth, just four weeks after the lesion started. A faint mottling could be detected on the chest at the time of the first visit. The lesion was dime in size, indurated, and located on the left cheek, one inch to the left of the nose and the same distance below the left eye. Mucous patches have appeared on the vulva, and also a typical papular eruption on the buttocks and the back. All the concomitant signs of syphilis are present. The mother also has a maculo-papular eruption, and the other symptoms of the disease.

A case of recurrent annular syphilis was shown by Dr. Schamberg. The patient was a white woman of twenty-seven years. The first eruption was noted in January, 1907, and presented a characteristic maculo-papular appearance. The present outbreak started three weeks ago. This recurrence is almost entirely limited to the forearms. The lesions are very superficial, some almost eczematous, sharply circumscribed, slightly scaly, and annular. The discussion brought out the well-known fact, as to the frequency of the annular type in the negro race, and the rarity in those of light complexion.

A case of generalized eczema, that had been markedly improved by the Röntgen ray, was presented by Dr. Schamberg. The patient

was a male of sixty-five, and had suffered from this condition for some years. The dry, scaly eruption had been intensely itchy, and he suffered extremely. About seventy exposures to the ray were administered to the patient, the target being six to eight inches from the lesions. No toxæmia developed in the patient, notwithstanding the long and numerous Röntgen exposures and the fact that large areas were rayed at each sitting, although he had an interstitial nephritis, marked arteriosclerosis, and organic heart disease. Cocoa oil was applied night and morning to keep the skin lubricated.

A case of **generalized lichen planus** was exhibited by Dr. Stout, through the courtesy of Dr. Stelwagon. The patient was a woman thirty-nine years of age and born in Russia. The eruption began four months ago, as typical irregularly shaped, violaceous, shiny papules; starting on the wrists. Since then the eruption has spread, until now the entire cutaneous surface is involved, excepting the face, scalp, the palms, and the soles. In many places the papules have coalesced, forming large violaceous plaques. The mucous membranes are uninvolved.

A case of **lupus vulgaris** was shown by Dr. Stout, through the courtesy of Dr. Stelwagon. The patient was a negro boy of fifteen, and of healthy parents. No member of his family had suffered from tuberculosis, and no history of infection could be obtained. The boy was apparently healthy in every way. The present lesion started as a split-pea-sized papule five years ago. At this time there is a silver-dollar-sized, sharply marginate, nodulated, infiltrated, slightly scaly, yellowish-red lesion, located to the left of the nose, and chiefly over the malar bone. Another lesion of the same character, but dime in size, is situated to the left and one inch above the other. Numerous little processes filled the patulous openings of the sebaceous glands, resembling markedly the condition found in **lupus erythematosus**.

Photographs of a case of **generalized tinea favosa** were presented by Dr. Stout. The patient was a boy of fourteen years of age, born in this country of American parents. The condition started on the scalp one year ago, spreading to the body six months later. The entire scalp had been involved, as well as the arms, from the wrists to the shoulders the legs, from the ankles to the upper thighs; the shoulders, the buttocks, the face, over the zygomatic process, and the finger nails. Hundreds of typical sulphur-colored scutulae could be seen on the large areas involved. The trunk was practically free from the eruption. As the lesions disappeared, scarring was noted on the sites previously affected. The fungus had been demonstrated microscopically.

A case of **lichen atrophicus** (?) was exhibited by Dr. Schamberg. Baker, in 1882, was the first to describe this disease. Hallopeau in 1889 reported two cases, with full pathological findings. The patient was a girl eighteen years of age. The condition started two years ago, with split-pea-sized, whitish-yellow papules on the dorsal surface of the wrists. A silver-dollar-sized, firm, white, non-elevated lesion was noted

on the dorsal surface of the left wrist. This lesion was surrounded by a violaceous areolae, and minute capillaries coursed over the surface. On the nape of the neck another silver-dollar-sized lesion, with the same characteristics was found. A photograph was exhibited which showed a few keratotic follicular plugs on the dorsal surface of the hands and the wrists. At the time this case was presented no keratotic changes could be seen. The majority of those present considered the case as an unusual form of morphœa, and the previous keratosis as a separate entity.

A probable case of *fibroma molluscum* was presented by Dr. Knowles, in the absence of Dr. Davis. The patient was a male, seventeen years of age, and of Italian parentage. This condition started fifteen months ago as pin-head-sized, yellowish, hard, slightly raised, sharply circumscribed tumors. At the present time fully a hundred of these minute tumors are located on the lower chest, abdomen, and the back. These nodules are from small pin's head to split-pea in size, some being linear. At first glance colloid milium was suggested; then a keloidal condition, following either a deep seated syphilis or acne, both of which diseases the patient, from his own statement, had had. A biopsy previously made, showed that these tumors consisted of fibrous tissue, arising from the corium.

A case of *extragenital chancre* was shown by Dr. Schamberg. The patient was a negro of thirty-two years. He had first noticed this lesion six weeks previous to this meeting. The first thing noted was a small, raised papule, on the left side of the upper lip. The lesion increased in size and in induration, until at present it is dime-sized, densely indurated, raised, sharply marginate, yellowish-red, and ulcerated. Pharyngitis, general glandular enlargement, and muscular and osseous pains were present. A faint macular eruption of two days' duration was discernible on the back.

A case of *lenticular syphilis* was exhibited by Dr. Schamberg. The patient was a woman of twenty-eight. The eruption had lasted for six weeks and was almost generalized, although more abundant on the trunk. The lesions were chiefly flat, split-pea-sized papules. All the concomitant signs of the disease were present. The case was presented because of the marked pruritus; the heads of many of the papules being scratched off. The disease in this white woman resembles the pruritic type of syphilis, so frequently found in the negro race.

A case of *pemphigus vegetans* was presented by Dr. Schamberg. The woman was born in Russia, and had just passed her sixty-fourth birthday. The eruption first appeared as a vesico-bullous outbreak, six weeks ago. The mucous membrane of the lips, the tongue, the axillæ, and the parts surrounding the vulva were chiefly involved. Bullous lesions were also on the fingers, the toes, the upper back, and surrounding the umbilicus. Crop succeeded crop of these hen's egg,

and smaller, sized, bullæ. In the axillæ and the groins vegetations could be seen, which had developed at the site of the bullous outbreak. The nails of the fingers and the toes were noted to be exfoliating. The Wright injection method was to be tried in this case.

A case of *acute scleroderma* was shown by Dr. Schamberg. The patient was a boy only nine years of age. Six weeks before the boy came to the hospital he was normal in every way. At the present time the case, although improved under treatment, is a pitiable looking sight, scarcely able to turn his head in any direction. Almost the entire neck is rigid, veritably "hide-bound." The shoulders, to the spine of the scapulæ; and the chest, from the fifth rib upward, on both sides, are likewise involved. The case is typical in every way, the board-like resistance being markedly present. Thyroid extract was the only treatment given in this case; the dosage being constantly increased, until at present nine grains daily are being administered. No ill effects have been seen from these large doses; the patient showing slow but continuous improvement.

FRANK CROZER KNOWLES, M. D., Reporter.

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CORRESPONDENCE.

To the Editor of the JOURNAL OF CUTANEOUS DISEASES:

In the November number of the JOURNAL appeared a letter from me written October 18th, relative to a critique of one of my articles published by Dr. Dubreuilh, of Bordeaux. At the time of writing of this note, I was not aware that a letter mailed by me some months before, was about to appear in the *Annales de Derm. et de Syph.*, with a rejoinder by our eminent colleague, which in justice to him I am asking you to publish. The translation is mine:

"The error with which I am reproached by M. Hyde is the more excusable because it was compulsory. I had not thought of making a trip to Paris in order to consult the library of the American embassy; I accepted the figures as given by my excellent colleague. In no part of his paper does he remark: Cancer of the head, of the face, and of the neck does not include cancer of the mouth and its appendages, rather on page 13 occurs the following:

'The deaths reported as due to cancer of the head, face, and neck, in connection with the subject under discussion, are of special interest. While it is not definitely stated that these were all cases of cancer of the skin, clinical evidence establishes the fact that the majority of all cases of cancer of these regions originates in and is chiefly limited to the skin and underlying parts.'

"Neither in his paper nor in his letter does he state in which group cancers of the lower lip are included. It is there probably where the largest mortality occurs. By its situation it belongs rather to the skin than to the mucous membranes; by its etiology it is a cancer of the mouth; but we do not know if the statistics in question include it among cancers of the head, the face, and the neck, or among those of the mouth, the tongue, and the throat. Its frequency among men and its gravity considerably modify mortality statistics."

"In closing, I make *amende honorable* for my error; but it is well justified by the text of the paper and my criticism is not totally negatived by M. Hyde's letter.—W. Dubreuilh."

I am, etc.,

JAMES NEVINS HYDE.

BINDING LIST MAR 8 1938

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The Journal of cutaneous
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